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ABSTRACT

The critical incident technique was used to identify several environmental dimensions relevant to the assessment of a college library, in this case the Cook Library of Towson State College, Maryland. Students were asked to fill out forms describing positive and negative encounters with the library and library staff and to complete a general information form. A detailed schedule was developed to tabulate positive and negative factors in four major areas: staff, materials, services, and physical environment. Results indicated that students were more concerned about the actions and attitudes of the staff and the availability of materials than about the library's physical environment, specific services, organization, or the quality of the collection. (Author/LS)

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# THE IDENTIFICATION OF RELEVANT DIMENSIONS FOR THE ENVIRONMENTAL ASSESSMENT OF A COLLEGE LIBRARY USING THE CRITICAL INCIDENT TECHNIQUE

by

Jeffrey G. Reed

A Thesis

Presented to the Faculty of

Towson State College

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Psychology

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Jeffrey G. Reed

Kansas State University

25 November, 1975

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# Chapter 1

## INTRODUCTION

The psychological study of human environments has increasingly been considered an appropriate and necessary endeavour. Henry Murray (1938) was one of the earliest psychologists to recognize the impact of environments on human behavior. Identifying the concept of press--i.e. the kind of effect an object or situation is exerting or could exert upon a subject through a temporal gestalt of stimuli which usually appear in the guise of a threat of harm or promise of benefit to the organism--which operates in conjunction with human needs--i.e. constructs which stand for forces in the brain region which organize perception, apperception, intellection and action in such a way as to transform in a certain direction an existing, unsatisfying situation--he isolated twenty dimensions of environmental press.

As individuals have different personalities and different needs, so environments have particular "personalities" (Insel and Moos, 1974) which affect the behavior of human individuals inhabiting those environments, through the press which the environment exerts upon the individual. A number of approaches have been taken in the study of particular environments, due to differing theoretical structures and philosophical orientations of their investigators. Moos (1974b) has identified six types of systems utilized in the assessment of human environments. They are: (a) the Ecological Dimensions approach, stressing either geographical and meteorological variables, or architectural and physical design variables, as noted in Craik's (1970) review of research, and the extensive work of Sommer (1966, 1968, 1969); (b) the Behavior Settings

approach, emphasizing the study of molar behavior in the ecological context in which it occurs, typified by work of Barker (1968) at the Midwestern Psychological Field Station; (c) the Dimensions of Organizational Structure approach, concerned with objective, organizational/management types of dimensions, as seen in Astin's (1962) work; (d) the Personal and Behavioral Characteristics of the Milieu Inhabitants approach which led to the development of the Environmental Assessment Technique (Astin and Holland, 1961), and the Inventory of College Activities (Astin, 1968); (e) the Psychosocial Characteristics and Organizational Climate approach, which relies on the perceived behavioral and structural observations of the milieu inhabitants, used in educational and industrial assessment by Stern (1970), by Pace (1969) in the development of the College and University Environment Scale, the Institutional Functioning Inventory (Peterson, et al., 1970), and the Social Climate Scales (Moos, 1974a); and (f) the Functional or Reinforcement Analysis of Environments, an outgrowth of social learning theory, used by Bandura (1969) and Schoggen (1963).

This researcher has been particularly interested in the approach taken by C. Robert Pace and associates in the development and revision of the College and University Environment Scale (Pace, 1969), and the work of Rudolf H. Moos and his associates at the Social Ecology Laboratory at Stanford University. Moos (1974a) reports the development of a series of nine different scales which utilize a uniform approach to assess the following environments: (a) psychiatric wards; (b) community-oriented psychiatric treatment programs; (c) correctional institutions; (d) military basic training companies; (e) university student residences; (f) secondary school classrooms; (g) group environments; (h) work

environments; and (i) family environments.

Library Behavioral Research

Although a number of studies have been made involving the whole or parts of college and university environments, absent from those studies are systematic evaluations of college libraries. An extensive search of literature available through Library Literature, the Educational Resources Information Center's Resources In Education, and Current Index to Journals in Education, and the Psychological Abstracts revealed only a few related publications of several types. There have been several behavioral and quasi-behavioral studies of the use of library card catalogs (Perrine, 1967; Tagliacozzo and Kochen, 1970; Lipetz, 1972; and Seymour and Schofield, 1973). A description of types of problems encountered by library users, and communication gaps between users and librarians are identified by Patterson (1973) and Swope and Katzer (1972). Ladendorf (1972) has investigated the non-use of libraries by potential users. Many libraries are the subject of "user surveys" such as the one conducted at Towson State College's Cook Library in the Spring of 1974, a copy of the questionnaire form from which is attached as Appendix A, and Allen's (1971) study of use of community college libraries. In an attempt to extend this area of research, this author engaged in a study of information-seeking behavior of college students (Reed, 1974).

Relevant environmental research concerning libraries, however, consists of four studies, primarily within the "personal space" framework, and dealing almost exclusively with the "study space" aspects of a college library (Committee for New College, 1960; Sommer, 1966, 1968; and Fishman and Walitt, 1972).

It was determined that an environmental assessment approach to the study of a college library was an appropriate research area to be pursued, since none has yet been accomplished. This author proposed to follow the format and development of the University Residence Environment Scale (Gerst and Moos, 1972; Moos and Gerst, 1974) which would also make it compatible with the other Social Climate Scales (Moos, 1974a) and the College and University Environment Scale (Pace, 1969).

The first step in the construction of such a scale involves the generation of a hypothetical framework of environmental dimensions to be assessed. Relying heavily on the author's previous professional and non-professional experience as a librarian and training in library science, on previously cited research, and on materials on library programs and library planning (American Library Association, Library Administration Division, 1965; Metcalf, 1965; Library Building Institute, 1965, 1967; Ellsworth, 1968, 1973) a list of library characteristic dimensions was identified. After consultation with Ms. Eleanore Hofstetter, Associate Director of the Cook Library, the list was revised, and re-defined to consist of the areas represented in Table 1. It should be clear from examining Table 1, that while the procedure involved in this research would follow procedural guidelines similar to those of Moos (1974a), the philosophical structure governing the inductively achieved categorization of the library environment dimensions is different, involving aspects of several environmental approaches. The approach used combines certain aspects of the following systematic treatments of environmental psychology: (a) the Ecological Dimensions approach, concentrating heavily on architectural and physical design characteristics; (b) the Behavior Settings approach, examining a variety of specific settings

Table 1

Library Environment Dimensions

1. The Physical Environment, consisting of the following areas:
   a. Architectural variables and physical design variables;
   b. Equipment and furnishings;
   c. Climate, e.g. heating, fenestration, lighting, etc.;
   d. Comfort and attractiveness.
2. Interpersonal Relationships, including:
   a. Staff encounters;
   b. Other user encounters.
3. Information Supply, consisting of:
   a. Information availability;
   b. Information arrangement and organization;
   c. Information quality;
   d. Arousal level of information environment.
4. Services of the library, including:
   a. Personnel services;
   b. Spatial or mechanical services, e.g. copying;
   c. Other services.
5. System flexibility, consisting of:
   a. System change to meet changing student needs;
   b. Responsiveness to student suggestions;
   c. Inertia in the system.

within a larger institution and the behavior which occurs in those settings; (c) the Personal and Behavioral Characteristics of the Milieu Inhabitants approach, in terms of activities engaged upon in the library which resulted in certain perceptions of the institution; and (d) the Psychosocial Characteristics and Organizational Climate approach, in terms of the structure and specific functioning of the institution along such dimensions as personnel, and regulations.

The second step in this procedure would be to develop a pool of test items which would be based upon the environmental dimensions posited. These items would be compiled into a questionnaire, administered to subjects, the data would be analyzed, and the test refined.

Two issues, however, have been raised at this point relative to both the end product and the methodology employed. First, how is one to know that the dimensions presented in Table 1 exhause the relevant dimensions of the environment to be assessed, and how do we know that proper weight is being placed in each area assessed. Second, Baird (1974) has been critical of many currently available college and university environment measures, largely because many lack practical applicability to real situations involving administrative, interpersonal, or other decisions and needs of groups within the academic community.

Neither of these questions can be answered adequately. The lack of behavioral research concerning college libraries leaves the question of empirical validation of the dimensions a moot question at this point. The writings of several consultants on college library design are available--e.g. Metcalf (1965), and Ellsworth (1968, 1973). However, the approach of these authors tends to stress the architectural nature of design problems, rather than the human or ecological character

of the institution, and, they are not particularly behavioristic in their approach. Added to this, Baird's criticism of existing scales would seem to suggest that he is questioning the very construct validity of these environmental measures in terms of whether they are really assessing a total environment.

The Critical Incident Technique: Background

Therefore, an alternative approach to the problem has been taken. The Critical Incident Technique (CIT) developed by John C. Flanagan and his associates at the American Institute for Research and the University of Pittsburgh will be used to identify dimensions of the environment (Fitts and Jones, 1947a, 1947b; Flanagan, 1947, 1949a, 1949b, 1949c, 1949d, 1953, 1954a, 1954b, 1954c; Preston, 1948; Finkle, 1949; Gordon, 1949; Wagner, 1949; and American Institute for Research, 1951a, 1951b). The technique was initially standardized and employed for use in personnel selection and evaluation as a part of the U.S. Army Air Force's Aviation Psychology Program (Flanagan, 1947; Miller, 1947; Preston, 1948). In personnel work, data is collected from a large number of observers concerning the experiences of the observers with an individual in the target occupation where reports are made of persons in the target group exhibiting either very good or very poor examples of behavior in certain specific situations. These Critical Incidents of good or poor behavior are later refined and categorized to produce the relevant critical dimensions of a particular occupation or job, and may be expanded to employee evaluation. Flanagan (1954) in a review of early use and development of the Critical Incident Methodology notes the following uses of the technique in personnel evaluation: U.S. Air Force military combat

pilots; U.S. Army combat leaders; civilian airline pilots; research personnel in the physical sciences; air traffic controllers; industrial foremen; dentists; bookkeepers in sales companies; instructors in general psychology courses; sales clerks in department stores; and non-personnel uses in the functional definition of emotional immaturity; and the analysis of pilot errors which indicate the need for the redesign of cockpit instrumentation.

Since Flanagan's (1954) review and methodological outline, additional uses of the CIT have been made, many in the field of education. Evaluation has been attempted of teachers and teaching of mentally retarded children (Rotberg, 1967), elementary reading (Moore, 1974), elementary school teacher and teacher-aide performance and interaction (Schaeberle, 1972), secondary vocational home economics (Sumner, 1972), and physical education (Blank, 1958). College teaching in general (Owen, 1967), and junior college teaching (Kilpatrick, 1967), remedial English (Zucker, 1966), Gregg Shorthand (Ashby, 1971), social group work with graduate social work students (McGuire, 1963), and the development of an instructor check list (Konigsburg, 1954), have been investigated using the CIT; besides its use as a teaching device (Fleming, 1962; Steiner and Cochran, 1966). In studying educational administration, the CIT has been used to study student personnel workers (Smith, 1954) student personnel deans (Rodgers, 1963), public school supervisors (Lentin, 1974), public school administration under conditions of uneasiness associated with racial integration (Waters, 1972), elementary school principals (Dickie, 1973), and school principals in general (Phillips, 1954; Robins, 1954; Bice, 1955; Elliott, 1955; Tyson, 1955; Cooper, 1956, 1963; and Lee, 1974). In other areas of education, the methodology has been employed with

teacher-pupil relations (Peterson, 1963), classroom behavior of children (Flanagan, 1958), supervision of student teachers and selection of those supervisors (Roth, 1961; Nicholson, 1971; and McElroy, 1972), selection of student teachers (Ferrero, 1971), curriculum and teaching practices (Hageman, 1973), and teacher efficiency as a result of effective teaching of student teachers (Stewart, 1956). Also examined have been the motivation of teachers (Sellers, 1972), and professional growth stimulation of junior college business instructors (Farrar, 1962). Matthews (1973) has examined the school psychologist, while Cassel and Thurner (1971) have assessed school counselors. Several studies of the role of a foreign student advisor on college campuses have been done (Benson, 1968; Miller, 1968; and Williams, 1974). Miller (1962) has studied helping behaviors in university residence halls, and a theory of educational professionalsim has been developed (Leles, 1968).

Industrial use of the Critical Incident Technique has involved the assessment of factors in industrial accidents (Tarrants, 1963), factory foremen (Kay, 1959), training of foremen (Line, 1971), and industrial buyers (Cook, 1974).

In other areas Page (1973) has worked with the effective oral communication of state trial judges, while social case work performance (Takagi, 1958) and social group work intervention techniques (Morgan, 1966) have been investigated. The CIT has also been used in assessing the requirements of the following positions: agricultural extension agents (Kohl, 1968), Lutheran Ministers (Kolarik, 1954), training of sales personnel for department stores (Folley, 1969), and the behavior of conference participants (Gropper, 1956). Ciolos and Wark (1967) have investigated the problems associated with unilateral hearing loss; while definitions

of emotional handicap (Feierstein, 1961), emotional immaturity (Eilbert, 1953, 1957), and mental illness (Flanagan and Schmid, 1959), and characteristics of behavioral aggression in the mentally retarded (Domino, 1967) have been elicited.

In the development of the Americal Psychological Association's Code of Ethics for Psychologists, the CIT was the primary methodology employed (American Psychological Association, Committee on Ethical Standards for Psychology, 1949, 1950, 1951a, 1951b, 1951c, 1951d; American Psychological Association, 1952, 1953; and Hobbs, 1948). A recent bibliography of the Critical Incident Technique (Fivars, 1973) notes many additional applications of the methodology and several hundred additional citations covering research through the late 1960's.

Critical Incident Methodology

Flanagan (1954) defined the Critical Incident Technique as:

> ...a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles. ...(it) outlines procedures for collecting observed incidents having special significance and meeting systematically defined criteria. (p. 327)
>
> ...only simple types of judgements are required of the observer, reports from only qualified observers are included, and all observations are evaluated by the observer in terms of an agreed upon statement of the purpose of the activity. (p. 335)
>
> (and) ...rather than collecting opinions, hunches, and estimates, (it) obtains a record of specific behaviors from those in the best

position to make the necessary observations and evaluations. (p. 355)

Employed in the procedure outlined by Flanagan and used by others are a series of five steps.

1. General Aims. This should be a brief, general statement of the primary purpose of the activity, "which expresses in simple terms those objectives to which most people would agree" (p. 337).

2. Plans for Observations. This is the planning stage of the procedure, where decisions are made on parameters, criteria, sampling, etc...

3. Data Collection. Observations are obtained from subjects through the use of interviews, questionnaires, record forms, group interviews, or another medium which the experimenter deems valid.

4. Data Analysis. The reports are evaluated, categories are formed on the basis of the observations, and generalized behaviors are extracted from the categories.

5. Data Interpretation. The results are reported, discussed and the significance and relevance of same is noted.

Burns (1956, 1957) has suggested several modifications to the procedure which enhance its applicability and usefulness, particularly in areas one, two and four of the procedure. However, he also noted the limitations of the methodology, particularly in its lack of evaluative potential.

In the present study the CIT will be modified for use in an environmental framework. It is one of the few environmental applications of the methodology other than the Fitts and Jones (1947a, 1947b) utilization of the technique to suggest modification of airplane cockpit instrumentation.

Operational Definitions

Certain terms which will be later employed within the Critical Incident Methodology are defined as follows:

Critical Incident (CI). An incident is any observable event or characteristic of the library environment which can be described and reported by the observer. To be critical, that incident must in some way affect the behavior and/or perceptions of the observer in a fashion which either enhances or disrupts use of the library. The CI consists of the aspects of the report which describe the actual characteristics of the situation.

Critical Factor (CF). This is any single element of the CI which forms a simple, unique unit of the environment--e.i. it is a stimulus--the presence of which partially or wholly defines the CI. There may be more than one CF present in any particular incident, as there may be more than one stimulus operant in the environment.

Critical Requirement (CR). An aspect of the library's environment, the quality or presence of which affects the success of the library in performing its functions.

Purpose

The purpose of the present study is to identify, behaviorally, through the use of the Critical Incident Technique, those Dimensions, Areas and Classes of CF's which determine the CR's of the Albert S. Cook Library's environment, upon which basis a College Library Environment Questionnaire will be suggested. A secondary purpose is to test the use of the Critical Incident Technique in the area of environmental assessment.

Hypothesis

It is suggested that environmental dimensions identified in this study will roughly approximate those suggested in Table 1.

# Chapter 2

## METHOD

### Instruments

Each subject received a cover letter explaining the project and requesting assistance. A copy of the letter is attached in Appendix B.

Each subject received two questionnaire forms, one for the report of a NEGATIVE critical incident, and one for the report of a POSITIVE critical incident, copies of which have been attached in Appendix B. The two Questionnaires, which are very similar, were presented on two different colors of paper,--POSITIVE on gray paper, NEGATIVE on buff paper--to allow for easy distinction between the forms, and to attract attention to the two different forms. Order effects were controlled by counterbalancing the presentation order of the POSITIVE and NEGATIVE forms.

A DATA FORM to gather demographic information on each respondent--(a) frequency of library use, (b) college class, (c) residence status, (d) transfer status, (e) sex, (f) age, and (g) major department--was attached as the fourth page in each questionnaire set. See Appendix B for a copy of the DATA FORM.

The Post-Questionnaire Inquiry, which has been attached as Appendix C, was given to each subject in the pilot study following preliminary versions of the two previously cited questionnaires, in order to gather feedback from the subjects on the instruments themselves, their understandability and their format.

A cover letter in Appendix C was attached to the front of each pilot survey booklet, explaining the project.

All mailed questionnaires were accompanied by self-addressed reply envelopes, to facilitate the return of the questionnaires--one for campus residents, using the campus mail; the other a postage paid business reply envelope, for use through the United States Mail--a copy of each of which is included in Appendix D.

Pilot Study

A pilot study was run, using as subjects, 26 students at Towson State College. They were randomly selected as they entered the foyer of the Cook Library on Thursday, April 17, 1975.

Responses were received from 15 of the subjects--3 freshmen, 3 sophomores, 6 juniors, and 3 seniors, of which 8 were females, and 7 were males. Respondents represented majors in the following academic areas: Art, Biology, Business, Education, English, History, Nursing, and Psychology. Ten respondents indicated that they use the library on the average of at least once a week.

On the basis of the results of the pilot study, the Instruments were modified to the final form as presented in the Appendices, a form which in many ways is comparable to that used by Smit (1951).

Subjects

Subjects for the study were full-time, undergraduate, day students at Towson State College. A random sample of 394 resident students (students who lived on campus and who had campus mail boxes) and 409 commuter students (students who lived off campus) were selected (by hand) for a total of 803 subjects. (Administrative difficulties prevented computer selection.) The two samples were separately drawn, and while

they were roughly equal in size, the resident sample represented about 33% of the total available subject pool, whereas the commuter sample represented only about 6.5% of that available subject pool.

Procedures for the Survey

One instrument, as described above, was mailed to each subject, through the appropriate vehicle--compus mail for resident students, and U.S. Mail for commuter students. Each return envelope was coded with a unique two letter code to make a follow-up reminder possible. A reminder was not utilized because: (a) 20% response was received within three weeks; (b) the anticipated return did not justify added costs; and (c) many students' addresses were no longer available due to end of semester moving (a result of unavoidable time delays).

Data Manipulation and Classification

Responses to the survey were first examined to insure that (a) each report involved a CI, and (b) each report contained the description of an event.

Data was extracted from each questionnaire and recorded on index cards, with one CF report per card, demographic information, the type of response--Positive or Negative CI--and the unique reference code for each subject.

Cards were then sorted inductively into the following hierarchical groups:

1. Categories. The most general level of grouping, it represented the initial stage of classification. At this point, all identical or highly similar CF's were grouped together.

2. Classes. The second level of grouping, it consisted of closely related categories of CF's.

3. Areas. Representing particular aspects of the library environment, this level of grouping related associated classes, which were subsumed under the heading.

4. Dimensions. The fourth and highest level of grouping, this level pulled together all areas which are functionally, or behaviorally, or conceptually related aspects of the library environment, and separated into parallel groupings those areas which were unrelated. An attempt was made to define dimensions and areas as mutually exclusive entities.

Frame of Reference. An important aspect of Flanagan's (1954) procedure, the frame of reference in this instance was that of the library as an environment for use by people; and of an analysis of the similarities and differences in, and between, stimuli--represented in events, or incidents--which exert a press on the individual to the extent that the situation was reported as a CI. In all cases incidents and factors were treated and grouped from the point of view of a user, satisfied or dissatisfied with the library.

General Behaviors. The following suggested guidelines (Flanagan, 1954) were observed during the process of grouping data: (a) groups and their titles should be logical, clear cut, discernible, and easily remembered; (b) titles of groups should convey apparent meanings; (c) groups should be homogeneous; (d) titles and headings should be consistent and equivalent; (e) categories and classes should be

easily applied and maximally useful; and (f) the total grouping should be comprehensive and exhaustive.

Data Analyses

Comparisons were made between the responses of commuters and residents, and between positive and negative critical incidents, by Dimension and Area, in proportions and Chi Square values.

Comparisons of CF's were also made between class in college groups, by the gender of the respondent, by frequency of use of the library by the respondent, by entrance status of the student, and by academic area of the major. Alpha was set equal to .01.

Validity Testing

A random sample of 63 of the CF's (15% of the total), stratified by type of response, negative or positive (15% of each type), were submitted to four independent judges for grouping. Two were librarians and two were psychologists. Each was requested to group the CF's using the criteria outlined above. The instructions given to the raters are attached in Appendix E. Each rater received a complete questionnaire instrument identical to those given to subjects, for their information. Each rater received a copy of the "General Classification Scheme of Environmental Dimensions for College Library Environmental Assessment," contained in Appendix E. And, each received a list, "Random Sample of Critical Factor Reports," which contained the 63 sample CF's, a copy of which is attached as part of Appendix E.

The results of the rating of the 63 sample CF's by each of the raters were compared with the ratings assigned by the Investigator, using proportions for overall agreement, and agreement with each individual rater, and the Cochran Test as an inferential measure of disagreement (Hays, 1963). Alpha was set equal to .05.

# Chapter 3

## RESULTS

Library Critical Incident Questionnaires were mailed to a random sample of 803 Towson State College students to gather information concerning beneficial and detrimental aspects of the Albert S. Cook Library. This behavioral information was inductively organized in a classification arrangement of dimensions and subsidiary groupings, which may be seen as critical requirements, relevant to the environmental assessment of a college library.

### Questionnaire Responses

Of the 803 instruments mailed, 30 sets were returned to the investigator as undeliverable--in most cases because the individual had moved and left no forwarding address--for an adjusted total of 773 instruments mailed successfully. Responses were received from a total of 177 subjects--22.9% of the sample. Seven of the responses were unusable because they contained no information, or so little information that they did not meet the criteria established for the inclusion of data--two were completely blank, while three others contained notes from the subjects indicating that they had not used the library in such a long time that they were unable to provide any information. The total number of responses was thus reduced to 170.

Of the total 177 returns, 89 were from resident students (a 23.8% return rate), and 88 were from commuter students (a 22.1% return rate),

out of a total of 374 successfully mailed to residents and 399 successfully mailed to commuters.

Demographic Characteristics of the Respondents

Of the respondents 119 (70.8%) were females, and 49 (29.2%) were males, while two did not report their sex. These results represent a slightly higher proportion of females than exist in the total Towson State College student population from which the sample was drawn. [1] A further breakdown of respondents by residency status, reported in Table 2, indicates a higher proportion of males responding in the commuter sample than in the resident sample, in comparison with female responses.

The Class in College of respondents may be seen in Table 3, for the 170 subjects whose responses were usable. A greater number of seniors responded than any other class, again a discrepancy from the available student population. [1] And, conflicting trends may be noted when comparing responses from residents and commuters, with more responses received from lower division (freshman, sophomore) residents, and more responses received from upper division (junior, senior) commuters, than their comparison groups.

The majority of Towson State College students who responded entered the institution as Freshmen, as may be seen in Table 4. It may also be noted that there were a higher proportion of transfer students among the commuter respondents than among the resident respondents.

---

1. Office of Academic Systems Research, Towson State College, 1974 Statistical Fact Book, was used as an official source for comparison.

Table 2

Gender of the Respondents

| Status | Sex | | | | Sub-totals | |
|---|---|---|---|---|---|---|
| | Female | | Male | | | |
| Resident | 65 | (38.7%) | 23 | (13.7%) | 88 | (52.4%) |
| Commuter | 54 | (32.1%) | 26 | (15.5%) | 80 | (47.6%) |
| Sub-totals | 119 | (70.8%) | 49 | (29.2%) | N = 168 | |

Table 3

Class in College of the Respondents

| Status | Class | | | | Sub-totals |
|---|---|---|---|---|---|
| | Freshman | Sophomore | Junior | Senior | |
| Residents | 28 (16.5%) | 24 (14.1%) | 21 (12.4%) | 16 (9.4%) | 89 (52.4%) |
| Commuters | 11 (6.5%) | 13 (7.6%) | 23 (13.5%) | 34 (20.0%) | 81 (47.6%) |
| Sub-totals | 39 (22.9%) | 37 (21.8%) | 44 (25.9%) | 50 (29.4%) | N = 170 |

Table 4

Towson State Entry Status of the Respondents

| Residency | Entrance as: Freshman | Transfer | Sub-totals |
|---|---|---|---|
| Residents | 74 (44.0%) | 15 (8.9%) | 89 (53.0%) |
| Commuters | 42 (25.0%) | 37 (22.0%) | 79 (47.0%) |
| Sub-totals | 116 (69.0%) | 52 (31.0%) | N = 168 |

The distribution of respondents by age group may be seen in Table 5. Of the 166 persons reporting their age, the majority (74.1%) were 21 years of age or younger at the time of the survey. Again, a conflicting tendency may be noted in the sample, where far more older students appear in the commuter group than in the resident group, and far fewer commuters who responded were less than 20 years of age than in the resident group.

The Academic Area of study of the respondents, with specific frequencies by discipline, may be seen in Table 6. The largest number of respondents were in the Social Sciences (52 subjects for 29.7% of the total), and the fewest respondents were in the Sciences. In a few cases, subjects reported a double major, in which each was counted, accounting for the 175 reports of academic major, in spite of several students failure to report their major. The discipline with the largest number of respondents was Business Administration, followed by Elementary Education, Psychology, Mass Communications and Speech, and Art. More residents than commuters specified a major in the Fine Arts or the Sciences, while more commuters than residents reported a major in the Humanities or Education.

When asked about the frequency of their use of the college library, 168 students responded, selecting among: (a) once a month or less; (b) two or three times a month; (c) once a week; or (d) several times a week. Responses to this question may be seen in Table 7. Fifty-eight percent of the respondents cite categories (a) or (b)--which had been intended by the investigator to indicate infrequent library use.

Table 5

Age of the Respondents

| Residency | Age Group | | | | | Sub-totals |
|---|---|---|---|---|---|---|
| | 19 | 20-21 | 22-23 | 24-29 | 30 | |
| Residents | 41 | 37 | 10 | 1 | 0 | 89 |
| | (24.7%) | (22.2%) | (6.0%) | (0.6%) | - | (53.6%) |
| Commuters | 15 | 30 | 12 | 9 | 11 | 77 |
| | (9.0%) | (18.0%) | (7.2%) | (5.4%) | (6.6%) | (46.4%) |
| Sub-totals | 56 | 67 | 22 | 10 | 11 | N = 166 |
| | (33.7%) | (40.4%) | (13.3%) | (6.0%) | (6.6%) | |

Table 6

Academic Area of the Respondents

(Frequency and Percent by Resident and Commuter)

FINE ARTS

| | Art | Music | Theatre | Sub-totals |
|---|---|---|---|---|
| Resident | 9 | 3 | 1 | 13 (14.3%) |
| Commuter | 1 | 2 | 1 | 4 (4.8%) |
| Sub-totals | 10 | 5 | 2 | 17 (9.7% overall) |

EDUCATION

| | Early Childhood | Elementary | Other | Sub-totals |
|---|---|---|---|---|
| Resident | 3 | 6 | 3 | 12 (13.2%) |
| Commuter | 6 | 11 | 4 | 21 (25.0%) |
| Sub-totals | 9 | 17 | 7 | 33 (18.8% overall) |

HUMANITIES

| | English | General Studies | History | Speech, Mas.Com. | Modrn. Lang. | Philo. | Sub-totals |
|---|---|---|---|---|---|---|---|
| Resident | 3 | 1 | 2 | 3 | 0 | 1 | 10 (11.0%) |
| Commuter | 2 | 0 | 3 | 8 | 2 | 1 | 16 (19.0%) |
| Sub-totals | 5 | 1 | 5 | 11 | 2 | 2 | 26 (14.8% overall) |

Table 6 continued

SOCIAL SCIENCES

| | Busin. Admin. | Geogr. | Intl. Stud., Soc.Sci. | Pol.Sci., Law Enf. | Psych. | Socio., Anthro. | Sub-totals |
|---|---|---|---|---|---|---|---|
| Resident | 14 | 2 | 1 | 2 | 5 | 3 | 27 (29.7%) |
| Commuter | 8 | 0 | 1 | 4 | 9 | 3 | 25 (29.7%) |
| Sub-totals | 22 | 2 | 2 | 6 | 14 | 6 | 52 (29.7% overall) |

SCIENCES

| | Biology | Chemistry | Mathematics | Natural Sciences | Sub-totals |
|---|---|---|---|---|---|
| Resident | 2 | 2 | 6 | 1 | 10 (11.0%) |
| Commuter | 1 | 0 | 2 | 0 | 3 (3.6%) |
| Sub-totals | 3 | 1 | 8 | 1 | 13 (7.4% overall) |

PHYSICAL EDUCATION AND HEALTH SCIENCES

| | Health | Medic. Techn. | Nursing | Occup. Ther. | Physic. Educa. | Speech Pathol. | Sub-totals |
|---|---|---|---|---|---|---|---|
| Resident | 5 | 1 | 3 | 1 | 7 | 2 | 19 (20.9%) |
| Commuter | 4 | 0 | 5 | 0 | 2 | 4 | 15 (17.8%) |
| Sub-totals | 9 | 1 | 8 | 1 | 9 | 6 | 34 (19.4% overall) |

Total Responses: Residents = 91

Commuters = 84

N = 175

Table 7

Frequency of Use of the College Library by Respondents

(by frequency and percentage)

| | Category of Use Frequency | | | | |
|---|---|---|---|---|---|
| | once a month or less | 2 or 3 times a month | about once a week | several times a week | Sub-totals |
| Resident | 26 (29.0%) | 25 (28.0%) | 19 (21.0%) | 19 (21.0%) | 89 (53.0%) |
| Commuter | 21 (27.0%) | 25 (32.0%) | 9 (11.0%) | 24 (30.0%) | 79 (47.0%) |
| Sub-totals | 47 (28.0%) | 50 (30.0%) | 28 (17.0%) | 43 (26.0%) | N = 168 |

Classification of Critical Factors (CF's)

A total of 427 CF's were identified and extracted from the CI reports. The number of CF's contained in each CI varied from one to several, depending upon the complexity of the situation, the number of activities reported, etc. Some subjects reported more than one negative and one positive CI, resulting in six CF's for one subject.

The CF's were grouped following the guidelines for classification previously cited, resulting in four major Dimensions, with subsidiary Areas, Classes and Categories for each. The Dimensions and Areas formed were:

I. Staff of the Library.
   - A. Actions taken by personnel.
   - B. Attitudes exhibited by personnel interacting with users.

II. Materials in the Library.
   - A. Availability of Library Materials.
   - B. Location Systems used in Organizing Materials, and Information Sources used in Location of Information.
   - C. Quality of Materials in the Collection.

III. Services provided by the Library.
   - A. Hours of Library Service.
   - B. Borrowing of Library Materials.
   - C. Access to Information.

IV. Physical Environment of the Library.
   - A. Equipment in the Library.
   - B. Physical Design of the Facilities.
   - C. Interactions with other users.
   - D. Location of the Library on Campus.

Classification of CF's into this arrangement may be seen in Table 8.

Table 8

General Classification of Critical Factor Reports

(with frequency of response for each Category)

I. STAFF OF THE LIBRARY (including all staff).

A. Actions taken by Staff Members.

---

1. Explanation or Demonstration of Materials, Services, or Procedures.

| | Frequency |
|---|---|
| Positive (clear, precise, helpful) | |
| a. Reference/Information Dept. | 10 |
| b. Periodicals Dept. | 2 |
| c. Educational/Curriculum Materials Dept. | 2 |
| e. Multi-/Micro-Media Dept. | 7 |
| Negative (unclear, confusing, unhelpful) | |
| a. Reference/Information Dept. | 1 |

---

2. Information or Directions Regarding Material Location Given.

| | |
|---|---|
| Positive (clear, correct, precise, helpful) | |
| a. Reference/Information Dept. | 19 |
| b. Periodical Dept. | 6 |
| d. Educational/Curriculum Materials Dept. | 5 |
| e. Multi-/Micro-Media Dept. | 1 |
| h. Staff-in-general | 1 |
| Negative (unclear, incorrect, unhelpful) | |
| a. Reference/Information Dept. | 6 |
| b. Periodical Dept. | 1 |
| e. Multi-/Micro-Media Dept. | 1 |

Table 8 continued

| | | | |
|---|---|---|---|
| I.A.2. | f. | Faculty Reserve Room | 4 |
| 3. | Interpretation or Modification of Library Rules or Procedures. | | |
| | Positive (helpful, favourable, beneficial to student user) | | |
| | c. | Circulation Dept. | 3 |
| 4. | Availability of Staff when needed. | | |
| | Negative (generally absent) | | |
| | h. | Staff-in-general | 1 |
| 5. | Actions Taken when asked for assistance. | | |
| | Negative (no action, assistance refused) | | |
| | c. | Circulation Dept. | 2 |
| | B. | Attitudes Exhibited by Staff in interactions with users. | |
| 1. | Civility. | | |
| | Positive (courteous, respectful, pleasant, cheerful) | | |
| | a. | Reference/Information Dept. | 1 |
| | c. | Circulation Dept. | 1 |
| | e. | Multi-/Micro-Media Dept. | 1 |
| | f. | Faculty Reserve Room | 3 |
| | g. | Lobby (foyer door checkers) | 2 |
| | Negative (discourteous, disrespectful, rude, sarcastic, insulting, obnoxious, offensive, or nasty) | | |
| | a. | Reference/Information Dept. | 4 |

Table 8 continued

| | | | |
|---|---|---|---|
| I.B.1. | b. | Periodical Dept. | 7 |
| | c. | Circulation Dept. | 1 |
| | e. | Multi-/Micro-Media Dept. | 5 |
| | f. | Faculty Reserve Room | 5 |

---

2. Willingness to assist users.

Positive (open, enthusiastic, helpful, concerned)

| | | |
|---|---|---|
| a. | Reference/Information Dept. | 5 |
| b. | Periodical Dept. | 4 |
| c. | Circulation Dept. | 1 |
| d. | Educational/Curriculum Materials Dept. | 3 |
| e. | Multi-/Micro-Media Dept. | 6 |
| f. | Faculty Reserve Room | 1 |
| h. | Staff-in-general | 6 |

Negative (Lazy, uninterested, preoccupied, too busy, indifferent)

| | | |
|---|---|---|
| a. | Reference/Information Dept. | 3 |
| c. | Circulation Dept. | 2 |
| d. | Educational/Curriculum Materials Dept. | 2 |
| f. | Faculty Reserve Room | 5 |
| h. | Staff-in-general | 6 |

---

3. Patience of Staff Members in meeting user's needs, and flexibility.

Positive (patient, flexible)

| | | |
|---|---|---|
| a. | Reference/Information Dept. | 1 |
| b. | Periodicals Dept. | 2 |
| f. | Faculty Reserve Room | 1 |

Table 8 continued

I.B.3. e. Multi-/Micro-Media Dept. 1

---

4. Efficiency in handling user requests.

Positive (efficient, effective)

e. Multi-/Micro-Media Dept. 1

Negative (inefficient, slow)

d. Educational/Curriculum Materials 1

f. Faculty Reserve Room 1

---

5. Condescension in relation to user's request.

Negative (wasting staff time, request is foolish, user is stupid)

a. Reference/Information Dept. 3

---

---

---

II. MATERIALS IN THE LIBRARY.

A. Availability of Library Materials.

---

1. Materials Owned by the Library.

Positive (available, used and useful)

a. Books 7

b. Periodicals 5

c. Micro-/Multi-Media Materials (audio tapes, video tapes, records, films, microforms, filmstrips) 8

d. Reserve Readings 3

e. Educational/Curriculum Materials (lesson plans, pictures, books, etc.) 4

g. Reference Books/Indexes 12

h. Materials-in-general (or specific information) 3

Table 8 continued

II.A.1.

Negative (missing, stolen, not on shelf)

| | | |
|---|---|---|
| a. | Books | 13 |
| b. | Periodicals | 9 |
| c. | Micro-/Multi-Media Materials | 2 |
| d. | Reserve Readings | 3 |
| e. | Educational/Curriculum Materials | 1 |
| g. | Reference Books/Indexes | 1 |
| h. | Materials-in-general (or specific information) | 1 |

---

2. Not owned by the library.

Negative (never purchased, incomplete sets)

| | | |
|---|---|---|
| a. | Books | 3 |
| b. | Periodicals | 9 |
| g. | Reference Books/Indexes | 1 |

---

3. Materials owned but unavailable.

Negative (at the bindery, in processing)

| | | |
|---|---|---|
| b. | Periodicals | 3 |
| d. | Reserve Readings | 1 |

---

4. Materials in damaged condition.

Negative (mutilated, defaced, pages missing)

| | | |
|---|---|---|
| a. | Books | 1 |
| b. | Periodicals | 4 |
| c. | Micro-/Multi-Media Materials | 1 |

Table 8 continued

| | | | |
|---|---|---|---|
| II.A.4. | e. | Educational/Curriculum Materials | 1 |

---

5. Arrangement of Materials.

Negative (disorganized, out of order, scattered)

| | | | |
|---|---|---|---|
| | b. | Periodicals | 7 |
| | e. | Educational/Curriculum Materials | 1 |
| | g. | Reference Books/Indexes | 1 |

---

6. Owned by the library but being used by others.

Negative (not enough copies available of high demand materials)

| | | | |
|---|---|---|---|
| | d. | Reserve Readings | 1 |

---

---

B. Location Systems used in Organizing Materials, and Information Sources used in Location of Information.

---

1. Logic and understandability of the systems available.

Positive (understandable, logical, negotiable)

| | | | |
|---|---|---|---|
| | a. | Card Catalog | 1 |

Negative (confusing, complex, unintelligible, incomprehensible)

| | | | |
|---|---|---|---|
| | a. | Card Catalog | 3 |
| | b. | Classification/Numbering System for books | 3 |
| | d. | Floorplan and distribution of materials | 1 |
| | e. | Music Card Catalog | 1 |
| | h. | Library-in-general | 3 |
| | i. | Inter-library Loan system | 1 |

---

Table 8 continued

II.B.

2. Ability of the user to use the system to acquire information.

Positive (was able to find specific information needed)

| | | |
|---|---|---|
| b. | Classification/Numbering System | 1 |
| c. | Indexes to Periodicals and other materials | 1 |

Negative (unsuccessful at negotiating system)

| | | |
|---|---|---|
| a. | Card Catalog | 5 |
| b. | Classification/Numbering System | 1 |
| c. | Indexes to Periodicals and other materials | 3 |

---

3. Availability of information about the library's systems, and the ability of users to learn about the system, impression of system.

Negative (system is formidable, imposing, frightening, fear inducing, difficult to understand)

| | | |
|---|---|---|
| a. | Card Catalog | 2 |
| c. | Indexes to Periodicals and other materials | 1 |

---

4. Proximity of Information Sources and related materials.

Negative (located far apart)

| | | |
|---|---|---|
| c. | Indexes to Periodicals and other materials | 1 |

---

5. Possibilities for browsing through the collection.

Positive (able to and enjoy browsing)

| | | |
|---|---|---|
| h. | Library-in-general | 1 |

Negative (very difficult because of library organization)

| | | |
|---|---|---|
| b. | Classification/Numbering System for books | 2 |

---

Table 8 continued

II. C. Quality of Materials in the Collection.

---

1. Currency of materials.

Negative (out-of-date)

a. Books 2

---

2. Selection and variety of materials.

Positive (wide variety available)

c. Materials-in-general 1

Negative (poor selection, few materials in certain areas)

a. Books (Black studies, psychology, recreation, nursing, crafts) 2

b. Periodicals (psychology, nursing)

d. Materials in specific areas (information) 1

---

3. Availability of Key Sources.

Negative (missing or not available)

a. Books (key primary sources) 1

b. Periodicals 2

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III. SERVICES PROVIDED BY THE LIBRARY. (Exclusive of spedific services covered in I. and II. above, as a function of either direct staff assistance, or material availability.

Table 8 continued

III. A. Hours of Library Service.

| | |
|---|---|
| 1. Availability of the library. | |
| Negative (not open when needed) | |
| a. Closed too early on weekday evenings | 3 |
| b. Closed on Friday evenings | 4 |
| c. Closed when needed on weekends (hours too short) | 6 |
| d. Closed prior to scheduled closing time | 3 |
| e. Opened too late on weekday morning | 1 |

B. Borrowing of Library Materials (rules, procedures).

| | |
|---|---|
| 1. Loan Period. | |
| Negative (too short) | |
| b. Faculty Reserve Materials | 1 |
| 2. Fines for overdue materials. | |
| Positive (cancelled by librarian) | |
| a. Circulation Department | 1 |
| Negative (too costly, nuisance) | |
| a. Circulating books | 1 |
| b. Faculty reserve | 1 |
| 3. Promptness of service. | |
| Negative (had to wait to check out materials) | |

Table 8 continued

| | | | |
|---|---|---|---|
| III.B.3. | a. | Circulation Dept. (took 10 minutes) | 1 |
| | b. | Faculty Reserve Room (long que) | 2 |

---

4. Identification Required of Borrowers.

Negative (T.S.C. I.D. is only acceptable form, unable to borrow)

| | | |
|---|---|---|
| a. | Circulation Dept. | 1 |
| b. | Faculty Reserve Room | 1 |

---

5. Records kept on borrowed materials.

Negative (missing or incorrect)

| | | |
|---|---|---|
| a. | Circulation Dept. | 1 |

---

6. Placement of Hold Requests for Materials in circulation.

Positive (done and notified promptly)

| | | |
|---|---|---|
| a. | Circulation Dept. | 1 |

---

7. Renewal of needed materials.

Positive (librarian renewed needed book)

| | | |
|---|---|---|
| a. | Circulation Dept. | 1 |

Negative (librarian refused to renew book)

| | | |
|---|---|---|
| a. | Circulation Dept. | 1 |

---

8. Illegal removal of materials from the library.

Positive (took a book without checking it out)

| | | |
|---|---|---|
| a. | Circulating library book | 1 |

---

Table 8 continued

III. C. Access to Information and Services not available in the Library.

---

1. Materials needed for research.

Negative (services not available)

a. Computer search services for bibliographic information 1

b. Lists of resources and special services available in nearby libraries 1

c. Specific information packages (e.g. N.Y.Times Data Bank) 1

---

2. Procedures for the use of external services.

Negative (procedures disorganized, confising)

d. Interlibrary Loan materials never received 1

---

IV. PHYSICAL ENVIRONMENT OF THE LIBRARY

A. Equipment in the Library.

---

1. Equipment is essential.

Positive (available)

a. Copying Machines (xerox) 2

b. Typewriters 1

c. Multi-/Micro-Media Equipment (tape recorders, film facilities, record players, televisions, micro-form equipment) 14

Table 8 continued

| | | | |
|---|---|---|---|
| IV.A.1. | d. | Dollar change machine in basement | 1 |
| 2. | Condition of the equipment. | | |
| | Negative (out of order) | | |
| | a. | Copying machines | 6 |
| | b. | Typewriters | 1 |
| 3. | Useability and understandability of equipment. | | |
| | Positive (procedures simple, easy to learn) | | |
| | c. | Multi-/Micro-Media Equipment (recorders, microfilm & microfiche machines) | 2 |
| | Negative (unable to operate, procedures confusing) | | |
| | d. | Multi-/Micro-Media Equipment (recorders, microform machines) | 4 |
| 4. | Use equipment in leisure time and while studying. | | |
| | Positive (enjoy using for pleasure) | | |
| | c. | Multi-Media Equipment (record players, t.v.) | 3 |
| | B. | Physical Design Elements of the Library Building. | |
| 1. | Lighting, | | |
| | Negative (improper, irritating) | | |
| | f. | Reading Rooms | 1 |

Table 8 continued

| | | | |
|---|---|---|---|
| IV.B.1. | g. | Library-in-general | 1 |
| 2. | Temperature. | | |
| | Negative (too hot) | | |
| | a. | Reserve Reading Room | 2 |
| | g. | Library-in-general | 3 |
| 3. | Windows. | | |
| | Negative (absent, oppressive atmosphere) | | |
| | h. | Basement of library | 1 |
| 4. | Noise Levels in the library (soundproofing) | | |
| | Positive (quiet, good for studying) | | |
| | b. | Study Lounges | 1 |
| | c. | Book and Periodical Stacks | 1 |
| | d. | Study Carrells | 2 |
| | f. | Reading Rooms | 1 |
| | g. | Library-in-general | 4 |
| | Negative (noisy, disturbed easily by other users) | | |
| | a. | Reserve Reading Room | 4 |
| | b. | Study Lounges | 1 |
| | c. | Book and Periodical Stacks | 2 |
| | g. | Library-in-general | 4 |
| 5. | General Atmosphere of the Library. | | |
| | Positive (pleasant, attractive, clean, comfortable) | | |

Table 8 continued

| | | | |
|---|---|---|---|
| IV.B.5. | a. | Reserve Reading Room | 1 |
| | b. | Study Lounges | 1 |
| | d. | Study Carrells | 1 |
| | g. | Library-in-general | 4 |
| | Negative (unattractive, uncomfortable, messy, ugly) | | |
| | g. | Library-in-general | 4 |

---

6. Privacy availability.

Positive (available when needed)

| | | |
|---|---|---|
| d. | Study carrells | 1 |
| g. | Library-in-general provides privacy | 1 |

---

7. Rest Rooms.

Positive (available, accessible)

| | | |
|---|---|---|
| f. | location in lobbies of floors | 1 |

---

8. Exit Area (Lobby).

Negative (only one door for exiting)

| | | |
|---|---|---|
| f. | Main Lobby has long lines at peak times | 1 |

---

---

C. Interactions with Other Users of the Library.

---

1. Strangers.

Positive (helpful, considerate, knowledgeable)

a. Reference Area (introduced to new periodical index) 1

Table 8 continued

| | | | |
|---|---|---|---|
| IV.C.1. | b. | Periodical Room (shown procedures) | 1 |
| | c. | Reserve Reading Room (told about materials) | 1 |
| | d. | Multi-Media Room (helped with tape recorder) | 1 |

---

2. Friends (meeting place).

Positive (place for group study and socialization)

| | | | |
|---|---|---|---|
| | a. | Materials returned by a friend | 1 |
| | b. | Study Lounges (used for group study for exam) | 1 |
| | e. | Reading Room (talked to a friend) | 1 |
| | f. | Library-in-general (meet people) | 1 |
| | g. | Other areas (made love to girl friend) | 1 |

---

---

D. Location of the Library on Campus.

---

1. Relationship to parking areas.

Negative

| | | | |
|---|---|---|---|
| | a. | Parking Lots are acres away | 1 |

---

The distribution of CF's has been presented in summary form (Dimensions and Areas x Type) in Table 9. There were more negative than positive CF's, and the two largest Dimensions were "Staff of the Library" and "Materials in the Library" (I and II). The single largest Area was "Availability of Library Materials" (II.A.), followed by "Attitudes exhibited by personnel interacting with users" (I.B.) and "Actions taken by personnel" (I.A.). The disproportionality of the distribution of CF's among the four Dimensions was tested for randomness and found to be significantly divergent from normal ($\chi^2 = 16.03$, $df = 3$, $p < .01$).

In Table 10, the distribution of CF's has been presented by Type (positive vs. negative) to allow for percentage comparisons between the distributions of CF's among the Dimensions and Areas. While 49.2% of all positive CF's fall into Dimension I, only 26.3% of the negative CF's were recorded there; while the situation is reversed for Dimension II, with 43.5% of all negative CF's, as opposed to only 24.1% of all positive CF's. These same trends may be viewed in a further breakdown of a proportional distribution of CF's within each Dimension and Area by positive and negative Type, in Table 11. In Dimension I, 61.1% of all CF's were positive; while in Dimension II, 68.2% of all CF's were negative, with a similar occurrence in Dimension III (more negative than positive).

The unevenness of the distribution of positive and negative CF's among the Dimensions in Table 10 was found to be a statistically significant deviation from a random distribution ($\chi^2 = 22.22$, $df = 3$, $p < .001$), as was the case for Table 11 ($\chi^2 = 65.12$, $df = 3$, $p < .001$).

Table 9

Frequency Distribution of CF's (Classification x Type)

| Classification | Type | | Area | Dimension |
|---|---|---|---|---|
| | Positive | Negative | Sub-totals | Sub-totals |
| I.A. | 56 | 16 | 72 | |
| I.B. | 40 | 45 | 85 | |
| Type Sub-totals | 96 | 61 | | 157 |
| II.A. | 42 | 64 | 106 | |
| II.B. | 4 | 27 | 31 | |
| II.C. | 1 | 10 | 11 | |
| Type Sub-totals | 47 | 101 | | 148 |
| III.A. | 0 | 17 | 17 | |
| III.B. | 4 | 10 | 14 | |
| III.C. | 0 | 4 | 4 | |
| Type Sub-totals | 4 | 31 | | 35 |
| IV.A. | 20 | 14 | 34 | |
| IV.B. | 19 | 24 | 43 | |
| IV.C. | 9 | 0 | 9 | |
| IV.D. | 0 | 1 | 1 | |
| Type Sub-totals | 48 | 39 | | 87 |
| Type Totals | 195 | 232 | | N = 427 |

Table 10

Proportional Distribution of CF's (Percent by Type)

| Classification | Type | | Area % | Dimension |
|---|---|---|---|---|
| | Positive | Negative | of Total | % of Total |
| I.A. | 28.7% | 6.9% | 16.9% | |
| I.B. | 20.5% | 19.4% | 19.9% | |
| Type Sub-totals | 49.2% | 26.3% | | 36.8% |
| II.A. | 21.5% | 27.6% | 24.8% | |
| II.B. | 2.1% | 11.6% | 7.3% | |
| II.C. | .5% | 4.3% | .9% | |
| Type Sub-totals | 24.1% | 43.5% | | 34.7% |
| III.A. | 0 % | 7.3% | 4.0% | |
| III.B. | 2.1% | 4.3% | 3.3% | |
| III.C. | 0 % | 1.7% | .9% | |
| Type Sub-totals | 2.1% | 13.4% | | 8.2% |
| IV.A. | 10.3% | 6.0% | 8.0% | |
| IV.B. | 9.7% | 10.3% | 10.1% | |
| IV.C. | 4.6% | 0 % | 2.1% | |
| IV.D. | 0 % | .4% | .2% | |
| Type Sub-totals | 24.6% | 16.8% | | 20.4% |
| Type Totals | $n_p$ = 195 | $n_n$ = 232 | | N = 427 |

Table 11

Proportional Distribution of CF's

(Percent by Area and Dimension)

| Classification | Type | | Area n Total | Dimension n Total |
|---|---|---|---|---|
| | Positive | Negative | | |
| I.A. | 77.8% | 22.2% | 72 | |
| I.B. | 47.1% | 52.9% | 85 | |
| Dimension % | 61.1% | 38.9% | | 157 |
| II.A. | 39.6% | 60.4% | 106 | |
| II.B. | 12.9% | 87.1% | 31 | |
| II.C. | 9.1% | 90.9% | 11 | |
| Dimension % | 31.8% | 68.2% | | 148 |
| III.A. | 0 | 100.0% | 17 | |
| III.B. | 28.6% | 71.4% | 14 | |
| III.C. | 0 | 100.0% | 4 | |
| Dimension % | 11.4% | 88.6% | | 35 |
| IV.A. | 58.8% | 41.2% | 34 | |
| IV.B. | 44.2% | 55.8% | 43 | |
| IV.C. | 100.0% | 0 | 9 | |
| IV.D. | 0 | 100.0% | 1 | |
| Dimension % | 55.2% | 44.8% | | 87 |
| Percent of Total by Type | 45.7% | 54.3% | | N = 427 |

Distribution of CF's by Demographic Characteristics of Respondents: Sex

The frequency of CF responses for males and females by Dimension, Area and Type of response have been presented in Table 12. There were many more female CF's than male CF's, a trend consistent within each Dimension. Responses have been presented in Table 13, as a percentage distribution of CF's by sex, allowing for comparison of the distribution by Dimension and Area of male and female subjects vs. the total group of CF's. The uneven distribution of positive and negative CF's by Dimension noted earlier may be seen as a consistent pattern for each sex in Table 14. Comparing males and females, the distribution presented in Table 13 was not statistically significant ($\chi^2 = 8.652$, $df = 3$, $p$ = n.s.).

Demographic Characteristics: Residency Status

There were more CF reports from Residents than Commuters, although in both cases there were more negative than positive CF's, as may be seen in Table 15. The trends noted in Tables 9 and 10 maintain when the sample is subdivided by residency. Responses by residency status and Dimension were found not to be statistically significant ($\chi^2 = 1.84$, $df = 3$, $p$ = n.s.). A further comparison of Residents vs. Commuters by Type of response may be seen in Table 17. The results of that comparison in a 2 x 2 Chi Square also was not statistically significant ($\chi^2 = .47$, $df = 1$, $p$ = n.s.).

Demographic Characteristics: Class in College

The distribution of CF's by Class in College of the respondent may be seen in Table 18. As in Table 3, there were more CF's reported by Seniors than by any other class, and more reported by Juniors than by Freshmen or

Table 12

Frequency Distribution of CF's by Sex, Area, and Type

| Class. | Male | | | Female | | | Both Sexes |
|---|---|---|---|---|---|---|---|
| | Type | | Area | Type | | Area | Dimension |
| | Positive | Negative | Sub-tot. | Positive | Negative | Sub-tot. | Total |
| I.A. | 7 | 0 | 7 | 48 | 16 | 64 | |
| I.B. | 8 | 14 | 22 | 33 | 31 | 64 | |
| Sub-tot. | 15 | 14 | 29 | 81 | 47 | 128 | 157 |
| II.A. | 3 | 11 | 14 | 38 | 53 | 91 | |
| II.B. | 3 | 6 | 9 | 1 | 18 | 19 | |
| II.C. | 1 | 0 | 1 | 0 | 12 | 12 | |
| Sub-tot. | 7 | 17 | 24 | 39 | 83 | 122 | 146 |
| III.A. | 0 | 5 | 5 | 0 | 12 | 12 | |
| III.B. | 1 | 1 | 2 | 2 | 10 | 12 | |
| III.C. | 0 | 0 | 0 | 0 | 2 | 2 | |
| Sub-tot. | 1 | 6 | 7 | 2 | 24 | 26 | 33 |
| IV.A. | 7 | 1 | 8 | 17 | 9 | 26 | |
| IV.B. | 7 | 11 | 18 | 10 | 13 | 23 | |
| IV.C. | 4 | 0 | 4 | 5 | 0 | 5 | |
| IV.D. | 0 | 1 | 1 | 0 | 0 | 0 | |
| Sub-tot. | 18 | 13 | 31 | 32 | 22 | 54 | 85 |
| Totals by Type, Sex | 41 | 50 | 91 | 154 | 176 | 330 | 421 |

Table 13

Proportional Distribution of CF's by Sex and Area

| Classification | Gender | | Area | Dimension |
|---|---|---|---|---|
| | Male | Female | Total | Total |
| I.A. | 7.7% | 19.4% | 16.9% | |
| I.B. | 24.2% | 19.4% | 20.4% | |
| Gender Sub-tot. | 31.9% | 38.8% | | 37.3% |
| II.A. | 15.4% | 27.6% | 24.9% | |
| II.B. | 9.9% | 5.8% | 6.7% | |
| II.C. | 1.1% | 3.6% | 2.9% | |
| Gender Sub-tot. | 26.4% | 37.0% | | 34.7% |
| III.A. | 5.5% | 3.6% | 4.0% | |
| III.B. | 2.2% | 3.6% | 3.3% | |
| III.C. | 0 | .6% | .5% | |
| Gender Sub-tot. | 7.7% | 7.9% | | 7.8% |
| IV.A. | 8.8% | 7.9% | 8.1% | |
| IV.B. | 19.8% | 7.0% | 9.7% | |
| IV.C. | 4.4% | 1.5% | 2.1% | |
| IV.D. | 1.1% | 0 | .2% | |
| Gender Sub-tot. | 34.1% | 16.4% | | 20.2% |
| Gender Totals | n = 91 | n = 330 | | N = 421 |

Table 14

Proportional Distribution of CF's for Sex, by Type and Dimension

| Classification | Male | | | Female | | |
|---|---|---|---|---|---|---|
| | Positive | Negative | Sub-total n | Positive | Negative | Sub-total n |
| I. | 51.7% | 48.3% | 29 | 63.3% | 36.7% | 128 |
| II. | 29.2% | 70.8% | 24 | 32.0% | 68.0% | 122 |
| III. | 14.3% | 85.7% | 7 | 7.7% | 92.3% | 26 |
| IV. | 58.1% | 41.9% | 31 | 59.3% | 40.7% | 54 |
| Type Totals by Gender | 45.1% | 54.9% | 91 | 46.7% | 53.3% | 330 |

Total N = 421

Table 15

Frequency Distribution of CF's by Residency Status, Area and Type

| Class. | Resident | | | Commuter | | | Dimension |
|---|---|---|---|---|---|---|---|
| | Type | | Area | Type | | Area | |
| | Positive | Negative | Sub-tot. | Positive | Negative | Sub-tot. | Total |
| I.A. | 27 | 9 | 36 | 29 | 7 | 36 | |
| I.B. | 22 | 26 | 48 | 18 | 19 | 37 | |
| Sub-tot. | 49 | 35 | 84 | 47 | 26 | 73 | 157 |
| II.A. | 21 | 30 | 51 | 20 | 34 | 54 | |
| II.B. | 3 | 15 | 18 | 1 | 9 | 10 | |
| II.C. | 0 | 5 | 5 | 1 | 7 | 8 | |
| Sub-tot. | 24 | 50 | 74 | 22 | 50 | 72 | 146 |
| III.A. | 0 | 12 | 12 | 0 | 5 | 5 | |
| III.B. | 0 | 5 | 5 | 3 | 6 | 9 | |
| III.C. | 0 | 1 | 1 | 0 | 1 | 1 | |
| Sub-tot. | 0 | 18 | 18 | 3 | 12 | 15 | 33 |
| IV.A. | 16 | 5 | 21 | 8 | 5 | 13 | |
| IV.B. | 11 | 12 | 23 | 6 | 12 | 18 | |
| IV.C. | 7 | 0 | 7 | 2 | 0 | 2 | |
| IV.D. | 0 | 0 | 0 | 0 | 1 | 1 | |
| Sub-tot. | 34 | 17 | 51 | 16 | 18 | 34 | 85 |
| Totals | 107 | 120 | 227 | 88 | 106 | 194 | N = 421 |

Table 16

Proportional Distribution of CF's by Residency

| Classification | Resident | Commuter | Dimension Total |
|---|---|---|---|
| I. | 53.5% | 46.5% | 157 |
| II. | 50.7% | 49.3% | 146 |
| III. | 54.5% | 45.5% | 33 |
| IV. | 60.0% | 40.0% | 85 |
| Group Totals | 53.9% | 46.1% | N = 421 |

Table 17

Proportional Distribution of CF's by Residency and Type

| Classification Dimension | Residents | | | Commuters | | |
|---|---|---|---|---|---|---|
| | Positive | Negative | Number | Positive | Negative | Number |
| I. | 58.3% | 41.7% | 84 | 64.4% | 35.6% | 73 |
| II. | 32.4% | 67.6% | 74 | 30.6% | 69.4% | 72 |
| III. | 0 | 100.0% | 18 | 20.0% | 80.0% | 15 |
| IV. | 47.1% | 52.9% | 51 | 47.1% | 52.9% | 34 |
| Group Totals by Type | 47.1% | 52.9% | 227 | 45.6% | 54.6% | 194 |

Total N = 421

Sophomores. The distribution of CF's by respondents for each Class in College, divided by Dimension, may be seen in Table 19 in percentages. Except for Dimensions III and IV, the distribution of CF's by Dimension within each Class in College group was consistent with the overall distribution. In Table 20, the same data has been arranged to allow for the comparison of CF's by the Class in College of the respondent for each particular Dimension, in relation to the overall distribution by Class in College. The largest discrepancy from the overall trend occurred in Dimensions III and IV. A chi square test on the data as represented in Table 20 indicated non-significant differences between groups ($\chi^2$ = 21.34, df = 9, p = n.s.).

Demographic Characteristics: Towson State College Entry Status

Comparisons were made between students who entered Towson as Freshmen and those who transferred to Towson, which may be seen in Table 21. As in the comparisons of CF's by Type, there is a significant reversal in Dimensions I and II between Freshman and Transfer entrants--i.e. Freshmen gave more CF's in Dimension II, while Transfers gave more CF's in Dimension I. This trend may be seen more clearly in Table 22, which presented proportional distributions for Entry Status and Type by Dimension. It may also be noted that except for Dimension IV, the distribution of CF's for each group of entrants, within each Dimension, is consistent with the overall proportions presented in Table 11. A chi square test on the overall discrepancy between Freshman and Transfer CF's (270 vs. 148) was statistically significant ($\chi^2$ = 35.0, df = 1, $p < .001$).

Table 18

Frequency Distribution of CF's by Class in College of Respondents

| Class. | Freshman | | | Sophomore | | | Junior | | | Senior | | | Dimension |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | Totals |
| I.A. | 11 | 5 | 16 | 10 | 0 | 10 | 17 | 3 | 20 | 18 | 8 | 26 | |
| I.B. | 8 | 7 | 15 | 10 | 14 | 24 | 9 | 14 | 23 | 13 | 10 | 23 | |
| Sub-totals | 19 | 12 | 31 | 20 | 14 | 34 | 26 | 17 | 43 | 31 | 18 | 29 | 157 |
| II.A. | 8 | 7 | 15 | 11 | 15 | 26 | 15 | 18 | 33 | 7 | 24 | 31 | |
| II.B. | 1 | 8 | 9 | 1 | 7 | 8 | 0 | 5 | 5 | 2 | 4 | 6 | |
| II.C. | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 5 | 5 | 1 | 3 | 4 | |
| Sub-totals | 9 | 17 | 26 | 12 | 24 | 36 | 15 | 28 | 43 | 10 | 31 | 41 | 146 |
| III.A | 0 | 8 | 8 | 0 | 1 | 1 | 0 | 2 | 2 | 0 | 6 | 6 | |
| III.B. | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 3 | 4 | 2 | 5 | 7 | |
| III.C. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | |
| Sub-totals | 0 | 9 | 9 | 0 | 3 | 3 | 1 | 5 | 6 | 2 | 13 | 15 | 33 |
| IV.A. | 7 | 3 | 10 | 6 | 1 | 7 | 4 | 5 | 9 | 7 | 1 | 8 | |
| IV.B. | 5 | 3 | 8 | 4 | 3 | 7 | 5 | 10 | 15 | 3 | 8 | 11 | |
| IV.C. | 4 | 0 | 4 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 0 | 1 | |
| IV.D. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | |
| Sub-totals | 16 | 6 | 22 | 12 | 4 | 16 | 11 | 16 | 27 | 11 | 9 | 20 | 85 |
| Totals | 44 | 44 | 88 | 44 | 45 | 89 | 53 | 66 | 119 | 54 | 71 | 125 | N = 421 |

Table 19

Proportional Distribution of CF's by Dimension for Class in College

| Classification | Freshman | Sophomore | Junior | Senior | Dimension Totals |
|---|---|---|---|---|---|
| I. | 35.2% | 38.2% | 36.1% | 39.2% | 37.3% |
| II. | 39.5% | 40.4% | 36.1% | 32.8% | 34.7% |
| III. | 10.2% | 3.4% | 5.0% | 12.0% | 7.8% |
| IV. | 25.0% | 18.0% | 22.7% | 16.0% | 20.2% |
| Group Totals | 88 | 89 | 119 | 125 | Total N = 421 |

Table 20

Proportional Distribution of CF's by Class in College for Dimensions

| Classification | Freshman | Sophomore | Junior | Senior | Dimension Totals |
|---|---|---|---|---|---|
| I. | 19.7% | 21.7% | 27.4% | 31.2% | 157 |
| II. | 17.8% | 24.7% | 29.5% | 28.1% | 146 |
| III. | 27.3% | 9.0% | 18.2% | 45.5% | 33 |
| IV. | 25.9% | 18.8% | 31.8% | 29.7% | 85 |
| Group Average Percentages | 20.9% | 21.1% | 28.3% | 29.7% | N = 421 |

Table 21

Distribution of CF's by Status at Entrance

| Class. | Freshman | | | Transfer | | | Dimension |
|---|---|---|---|---|---|---|---|
| | Positive | Negative | Sub-tot. | Positive | Negative | Sub-tot. | Totals |
| I.A. | 38 | 7 | 45 | 17 | 9 | 26 | |
| I.B. | 10 | 32 | 42 | 30 | 13 | 43 | |
| Sub-tot. | 48 | 39 | 87 | 47 | 22 | 69 | 156 |
| II.A. | 31 | 45 | 76 | 10 | 17 | 27 | |
| II.B. | 2 | 20 | 22 | 2 | 4 | 6 | |
| II.C. | 0 | 8 | 8 | 1 | 4 | 5 | |
| Sub-tot. | 33 | 73 | 106 | 13 | 25 | 38 | 144 |
| III.A. | 0 | 12 | 12 | 0 | 5 | 5 | |
| III.B. | 2 | 7 | 9 | 1 | 4 | 5 | |
| III.C. | 0 | 1 | 1 | 0 | 1 | 1 | |
| Sub-tot. | 2 | 20 | 22 | 1 | 10 | 11 | 33 |
| IV.A. | 19 | 5 | 24 | 5 | 5 | 10 | |
| IV.B. | 13 | 12 | 25 | 4 | 12 | 16 | |
| IV.C. | 6 | 0 | 6 | 3 | 0 | 3 | |
| IV.D. | 0 | 0 | 0 | 0 | 1 | 1 | |
| Sub-tot. | 38 | 17 | 55 | 12 | 18 | 30 | 85 |
| Group Total | 121 | 149 | 270 | 73 | 75 | 148 | N = 418 |

Table 22

Proportional Distribution of CF's by Dimension for Entry Status of Respondents

| Classification | Freshman | | | Transfer | | | Dimension |
|---|---|---|---|---|---|---|---|
| | Positive | Negative | Area Percent | Positive | Negative | Area Percent | Percent |
| I. | 55.2% | 44.8% | 32.2% | 68.1% | 31.9% | 46.6% | 37.3% |
| II. | 31.1% | 68.9% | 39.3% | 34.2% | 65.8% | 25.7% | 34.4% |
| III. | 9.1% | 90.1% | 8.1% | 9.1% | 90.1% | 7.4% | 7.9% |
| IV. | 69.1% | 30.9% | 20.4% | 20.4% | 40.0% | 60.0% | 20.3% |
| Type Percents | 44.8% | 55.2% | | 49.3% | 50.7% | | |
| Status Percents | | | 64.6% | | | 35.4% | |
| Frequencies | | | 270 | | | 148 | N = 418 |

Demographic Characteristics: Age of Respondents

CF's were grouped into four categories by the age of the respondent--19 years of age or younger, 20 or 21 years of age, 22 to 24 years of age, and 25 years of age or older. It may be seen in Table 23 that the largest number of responses came from the 20-21 age group, and the second largest number from the 19 or younger group. A chi square test found this distribution of CF's among age groups to be statistically significant ($\chi^2 = 123.5$, $df = 3$, $p < .001$).

Demographic Characteristics: Frequency of Library Use

Subjects were asked to estimate how frequently they use the library. The distribution of CF's by frequency of use and Dimension may be seen in Table 24. Slightly more than 50% of the CF's were reported by persons who used the library less frequently than once a week. However, the largest category consisted of those CF's from respondents who use the library several times a week.

Demographic Characteristics: Academic Area of Respondents

The distribution of CF's by the major area of the subject, classification Dimension, and Type of response may be seen in Table 25. The largest number of CF's were reported by students in the Social Sciences (28.8%), followed by Health Sciences and Physical Education (19.8%), and Education (17.5%). This distribution approximates that of the respondents, presented in Table 6.

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Table 23

Distribution of CF's by Age Group of the Respondents and Type

| Class. | < 19 | | | 20 - 21 | | | 22 - 24 | | | > 25 | | | Dimension |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | Totals |
| I. | 31 | 14 | 44 | 41 | 33 | 74 | 11 | 7 | 18 | 12 | 7 | 19 | 155 |
| II. | 14 | 34 | 48 | 25 | 38 | 63 | 4 | 11 | 15 | 3 | 15 | 18 | 144 |
| III. | 0 | 10 | 10 | 2 | 10 | 12 | 0 | 3 | 3 | 1 | 7 | 8 | 33 |
| IV. | 21 | 7 | 28 | 18 | 18 | 36 | 7 | 5 | 12 | 4 | 5 | 9 | 85 |
| Column Totals | 65 | 65 | 130 | 86 | 99 | 185 | 22 | 26 | 48 | 20 | 34 | 54 | N = 417 |
| Group Proportion | | | 31.2% | | | 44.4% | | | 11.5% | | | 12.9% | |

Table 24

Distribution of CF's by Frequency of use of the library by respondents and Type

| Class. | Once a Month or Less | | | 2 or 3 times a Month | | | Once a Week | | | Several times a Week | | | Dimension Totals |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | Pos. | Neg. | n | |
| I. | 19 | 14 | 22 | 29 | 16 | 45 | 17 | 10 | 27 | 31 | 21 | 52 | 157 |
| II. | 8 | 25 | 33 | 16 | 25 | 41 | 9 | 23 | 32 | 13 | 23 | 36 | 142 |
| III. | 1 | 6 | 7 | 0 | 11 | 11 | 0 | 1 | 1 | 2 | 12 | 14 | 33 |
| IV. | 15 | 9 | 24 | 13 | 10 | 23 | 7 | 7 | 14 | 15 | 9 | 24 | 85 |
| Column Totals | 43 | 54 | 97 | 58 | 62 | 120 | 33 | 41 | 74 | 61 | 65 | 126 | N = 417 |
| Group Proportion | | | 23.3% | | | 28.8% | | | 17.7% | | | 30.2% | |

Table 25

Distribution of CF's by Type and Academic Area of the Respondent

| Class. | Positive Responses | | | | | | Dimension Totals |
|---|---|---|---|---|---|---|---|
| | Art | Education | Humanities | Social Sciences | Sciences | Health and Professional Sciences | |
| I. | 10 | 20 | 15 | 23 | 7 | 20 | 95 |
| II. | 3 | 10 | 4 | 11 | 2 | 13 | 43 |
| III. | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| IV. | 9 | 2 | 8 | 21 | 8 | 3 | 51 |
| Sub-totals | 22 | 32 | 28 | 55 | 18 | 36 | 191 |
| | Negative Responses | | | | | | |
| I. | 13 | 12 | 7 | 14 | 15 | 12 | 73 |
| II. | 9 | 23 | 11 | 32 | 6 | 24 | 105 |
| III. | 2 | 2 | 4 | 12 | 2 | 5 | 27 |
| IV. | 0 | 6 | 5 | 11 | 4 | 8 | 34 |
| Sub-totals | 24 | 43 | 27 | 69 | 27 | 49 | 239 |
| Area Totals | 46 | 75 | 55 | 124 | 45 | 85 | N = 430 |

Validity Testing of the Classification of CF's

A random sample of 63 CF's and other materials, presented in Appendix E, were submitted to four Raters for classification of each CF by Dimension and Area. The classification assigned to each CF by the investigator may be seen in Table 26. Of the total of 252 assignments made by the four Raters, they were in agreement with those of the investigator in 203 cases. Those instances where disagreement occurred between the investigator and one or more Raters may be seen in Table 26, along with the variant classification assignments made by the disagreeing Raters.

The degree of agreement between the investigator and the Raters ranged from a low of 77.8% agreement, to a high of 85.7% agreement, with a mean agreement of 79.4%. There was complete agreement between all parties on 37 of the 63 CF's (58.7% of the total items). Of the 49 classification disagreements (19.4% of the total CF ratings), 21 of the assignments (42.9%) involved a transposition within Dimension I, between Areas I.A. and I.B., while 59.2% of all disagreements involved Area I.A., "Actions taken by personnel."

The Cochran Test was employed in further analysis of results of the ratings, comparing the classification assignments made by the investigator with those of the four Raters, to test the degree of disagreement, with the investigator used as a criterion. The results of the test indicated that there was not a statistically significant difference between the the raters and the investigator ($Q = 2.81$, $df = 3$, $p$ = n.s.).

Table 26

Classification of a Random Sample of CF's by the Investigator and Raters' Disagreements

| CF | Investigator's Classification | Disagreements No. of Raters | Disagreements Class. | CF | Investigator's Classification | Disagreements No. of Raters | Disagreements Class. |
|---|---|---|---|---|---|---|---|
| -Ak | II.A. | | | -Eb | I.B. | | |
| -An | III.A. | | | +Ed | IV.A. | 2 | II.A./III.C. |
| -An | II.A. | 1 | II.C. | -Ef | III.A. | 4 | I.A./IV.B. |
| +Ax | I.A. | | | -Ek | I.B. | | |
| +Bc | IV.B. | 1 | IV.C. | +Et | IV.A. | | |
| -Bd | I.B. | 1 | I.A. | -Et | I.A. | | |
| -Bf | I.B. | 1 | I.A. | +Ev | III.B. | | |
| +Bh | I.B. | | | -Ev | III.A. | | |
| +Bh | I.B. | 2 | I.A. | +Ew | IV.A. | 1 | II.C. |
| -Bm | IV.B. | 3 | IV.C. | +Fk | I.A. | 1 | II.A. |
| -Bv | II.A. | | | -Go | IV.A. | | |
| -bE | I.B. | | | +Gp | I.A. | 1 | II.A. |
| +Cf | II.A. | | | -Gu | I.A. | 2 | II.A./I.B. |
| -Cy | I.B. | 1 | I.A. | +Gz | IV.C. | 1 | IV.D. |
| -Df | IV.D. | | | -Gz | II.A. | | |
| +Dp | I.B. | 1 | I.A. | +Hd | II.A. | | |
| -Dv | I.A. | 3 | I.B. | -Hd | II.C. | | |
| -Dy | II.B. | 2 | IV.B. | +Hj | II.A. | | |

Table 26 (continued)

| CF | Investigator's Classification | Disagreements No. of Raters | Disagreements Class. |
|---|---|---|---|
| -Hs | II.C. | | |
| +Ia | I.A. | 1 | II.B. |
| -Ia | I.A. | 1 | I.B. |
| -Ib | II.A. | | |
| +If | I.A. | | |
| -Jd | II.A. | | |
| +Jk | I.A. | | |
| -Jz | I.A. | | |
| -Kb | III.B. | 3 | I.A./III.A. |
| +Kd | I.A. | | |
| -Ke | IV.A. | | |
| +Kh | IV.A. | 2 | II.A./II.C. |
| -Kh | I.B. | 2 | I.A. |
| +Kl | I.A. | | |
| +Kw | I.A. | | |
| +Lb | II.A. | | |
| +Ma | I.A. | | |
| -Ma | IV.A. | | |
| +Mm | IV.B. | | |
| +Ms | I.B. | 4 | I.A. |
| -Ms | IV.B. | | |
| -Nb | II.A. | 3 | II.B. |
| -Nt | I.A. | | |
| -Od | II.A. | | |
| +Og | II.A. | 1 | II.B. |
| +Os | I.B. | 4 | I.A. |
| -Pm | IV.B. | | |

Disagreements with Rater No. 1, n = 13

Disagreements with Rater No. 2, n = 9

Disagreements with Rater No. 3, n = 13

Disagreements with Rater No. 4, n = 14

Total Rating Disagreements, N = 49

Total Number of Ratings, N = 252

Overall Agreement between the Investigator and the Raters = 80.6%

## Chapter 4

## DISCUSSION OF RESULTS

The 427 CF's reported by the 170 respondents were grouped into four Dimensions, 12 Areas, and 50 Classes.

There were more female than male respondents, more college seniors than any other class, twice as many freshman entrants as transfer entrants, and 40% belonged to the 20-21 year-old age group. The largest discipline represented was the Social Sciences, and the majority of respondents tended not to be heavy users of the library.

A word of caution in interpretation of the statistical results is in order at this point--i.e., all data is in terms of frequency counts, and each CI and the resultant CF(s) represent only a few of the possibly many interactions between the library and the individual user. Therefore, while the data provided to the investigator may be among the most vivid of recollections, or the most critical of circumstances, it does not necessarily represent the "typical" situation. Likewise, the greater number of negative than positive critical incidents, may not be a quantitatively accurate representation of interactions with the library--i.e., users may be much more satisfied than the large number of negative incidents would suggest. However, in the long run, with the collection of a large number of accounts--and this is a strength of the Critical Incident Technique--a general overall typical picture of the library may be thought to have been constructed, including both its strong points and its potential weak points.

The breakdown of CF's by Dimension tends to indicate that students

are most frequently concerned regarding their interactions with staff of the library, and the availability of library materials. The respondents were much less concerned about the actual physical environment of the library, and only 8.2% of the CF's related to specific services of the library, as indicated in Tables 9 and 10. Within the "Staff" Dimension, CF's were about evenly split between "Actions taken by staff" (I.A.), and "Attitudes expressed by staff" (I.B.). Most comments regarding materials centered around the actual availability of the needed materials (II.A.), while fewer CF's concerned the library's organization as a system (II.B.), and very few comments in this Dimension were concerned with the quality of the collection (II.C.). In the area of "Services", the overwhelming majority of comments were negative (88%), and they tended to be most concerned wtih library hours (III.A.), and borrowing priviledges and rules (III.B.); while relatively few comments concerned other aspects of the library's services (III.C.). The largest number of comments about the physical environment concerned the physical design aspects of the library (IV.B.), followed closely by CF's reporting on library equipment (IV.A.), and a few comments about direct interactions with other users of the library (IV.C.).

The significance of the chi square test on the distribution of CF's among the Dimensions suggests that the proportion of comments found in Dimensions I and II, as compared to the total distribution of CF's shows a high degree of clustering in those two areas. This indicates that I and II are probably the areas about which students are most concerned in their use of the college library.

<u>The Classification Arrangement: Responses by Dimensions: Comments</u>

On Dimension I (Staff of the Library), respondents tended to report positive actions more frequently than negative actions (I.A.), however, there were about an equal number of positive and negative reports of staff attitudes (I.B.). While both males and females were consistent with the trend in I.A., males were more inclined to make negative comments about staff members' attitudes than females. Freshman entrants were more frequently critical of staff attitudes than transfer students--a trend which may be indicative of experience with a greater variety of libraries and librarians, and hence a greater tolerance for shortcomings, on the part of the transfer students. Both residents and commuters were much more positive than negative about staff actions, while they seemed to express concern about neagative and positive aspects of staff attitudes with about equal frequency, and a similar trend seemed to be evident in examining CF's by class in college of the respondents.

In regard to library materials (Dimension II), respondents were consistently extremely negative--68.2% of the CF's were negative, ranging from a low of 60.4% negative CF's in Area II.A. (Availability of Library Materials), to a high of 90.9% negative CF's in Area II.C. (Quality of Library Materials). Further breakdown of responses by gender, residency status, class in college, entry status, age, frequency of library use, and academic discipline all tend to result in the same trends in the distribution of CF's.

Services of the Library (Dimension III) showed in all three Areas a negative tendency in CF reports (88.6% negative), a trend confirmed in each split of responses by demographic or other variables.

In Dimension IV (Physical Environment), the CF reports occurred

with slightly greater frequency to be positive than negative. However, this differed across specific Areas. Respondents more frequently reported positive than negative aspects of library equipment (Area IV.A.) and that it was useable, while they reported more negative than positive aspects of the physical design of the library (Area IV.B.). Comments were totally positive in regard to interactions with other users (IV.C.), and the one comment about the location of the library on campus was a negative CF report from a commuter student. This overall trend was consistent in breakdowns by sex, residency, and entry status. However, differences were obtained in comparing respondents by class in college, with upper class students being most negative in their comments.

Validity Test of the CF Classification

The present research has attempted to mesh several areas (an empirical approach to some of the problems involved in assessment of the effectiveness of a college library), and is based in large measure upon the investigator's exposure to, experience with, and biases toward these areas. In attempting to test the handling of data, and the results of classification, a random sample of CF's was submitted to two types of raters. Two raters were professional librarians, whom it was assumed were intimately familiar with libraries, but less so with behavioral methodology; while two other raters were psychologists, where the reverse was assumed to be true. It was found that 80.6% of the ratings made by these independent judges agreed with those of the investigator.

Examining some of the disagreements in rating of CF's may provide clues regarding the classification scheme itself, and areas of overlap between groups.

The conflict already noted between I.A. and I.B. strongly suggests either that these may not be mutually exclusive Areas, or possibly that operational definition of each must be improved. One of the raters noted in commenting on his ratings that he had had difficulty in separating the two areas, and suggested alternative classification of several items which were initially placed in either I.A. or I.B..

In several situations the result of disagreement in ratings appears to have occurred because, in fact, two CF's were included in the same report--e.g. Ia- and Kb-. In several cases it appears that there may have been simple coding errors--e.g. Ed+ and Gz+, since the variant responses of classification seem to make no intuitive sense to this investigator.

There is a question of clarity between the actual absence or presence of materials in the collection vs. the quality of the library collection. The former may be considered a part of the latter, however, in this instance the two were seen and defined as separate entities, a situation confused in rating of An-.

Of greater importance is the question, "Is noise in the library a function of the actual physical design of the building, or of the interactions (or lack thereof) between library users?" This caused confusion in rating reports Bc+ and Bm-. The investigator believes that in general noise may be controlled by physically modifying the environment, and therefore, questions of this nature should be relegated to category IV.B.

There is also a distinction to be made between materials and equipment in the library, which however, at times becomes blurred, particularly when dealing with non-print resources. For example, are we concerned with the software (the film, the micro-form, the book), or the hardware (the record player, the tape recorder). This distinction raises questions in two different areas--an availability question seen in ratings of Ed+ and Kh+, where the distinction must be made between Areas IV.A. and II.A.; and a quality question seen in ratings of Ew+ and Kh+, where the distinction must be made between Areas IV.A. and II.C..

Is the reason that a student was unable to find information because of poor assitance on the part of the library staff member (I.A.), or because of a lack of information in the library (II.A.)? This distinction was not clear in reports Fk+, Gp+, and Gu-, resulting in disagreement. When the total report is examined, the source of the problem in each case appears to be the staff member (I.A.).

A similar question arises in the distinction between the staff actions taken by a librarian in closing the library at the appointed time, rather than too early, violation of which would fall into category I.A. as an improper staff action; as opposed to a complaint about library services in the form of hours which may be too short for student needs (III.A.). This conflict arose in the case of CF Ef-, which item should probably have been placed in the Dimension of Library Services.

Several discrepancies arise when considering the location of

library materials. Are we concerned with the locational system used (II.B.), or with the physical layout of the building (IV.B.), a question creating confusion in classification of Dy-. On the other hand, one may be able or unable to find materials either because the information is available/unavailable (II.A.), or because of confusion due to the system of organization (II.B.). This latter distinction, causing confusion with incidents Nb- and Og+, appears to be due to insufficient information.

General Comments

It has been suggested (Reed, 1975) that one of the most serious problems affecting the college library is that students apparently do not know how to use a library effectively. Of all the negative CF's reported in the present study, 43.3% concerned the unavailability of library materials. One wonders in how many of these instances the item was unavailable, not because it was not in the library, but rather because the individual did not know how to use the library to find what was needed. An additional 26.3% of the negative CF's concerned objectionable interactions with library staff members--the individual may have been unable to help, may have given poor assistance, or may have exhibited an attitude which was in some way offensive for the inquirer. Not only may this be seen to result in poor library use, but one wonders how frequently these negative interactions with library staff members combine to accomplish two defeating purposes: (a) deterrence of the individual from assistance seeking in the future; (b) decreasing the frequency of use of the library by the individual.

A number of students openly admitted to: (a) being unable to use the library to find what they needed, whether it was use of the card catalog, the periodical indexes, or other materials; and (b) being intimidated by the size of the library, the organization of the library, or by the librarians themselves.

These problems cloud the picture substantially when we attempt to gain an accurate assessment of the student's perception of the library environment, in one sense. However, in another regard, this is the reality of the student users of the library. The fact that a student is unable to find the materials he/she needs, because of a lack of information regarding exact procedures to be employed in seeking that information, rather than because it does not exist, becomes a problem for the library, because for the student the material does not exist. And, when a student requests assistance and is met by the reference librarian in a most condescending tone of "did you look in the card catalog?" when in fact the student does not know how to use the catalog, or does not know what it is, or has looked in the catalog and has found nothing, the reality of this interchange may be that the library has just alienated another user. For that particular student, the staff member has been unhelpful, or lazy, or nasty, or condescending. Unless the assitance extends far beyond that initially negative interaction, the ataff member may never be able to overcome that initial negative impression on the part of the student user. As a result, the student's reality of the library may be vastly different from the librarian's reality. And the present situation existing in one library, in the experience of this investigator extends to many other libraries.

Critical Requirements for the effective college library for the student user may be developed based upon the classification scheme presented in Table 8. Further efforts should be made to translate those CR's into a useable rating scale, emplying a Likert type response option, which may provide for the library a realistic, practical measure of its perception by student users. That scale should be validated using several different types of college libraries, and within the context of a multivariate approach to statistical validation.

From that point it may be possible to make comparisons with other environmental assessment devices. Also, it may be possible to investigate this system in terms of Murray's (1938) conceptualization of presses and needs.

The Critical Incident Technique has been employed in the present research to behaviorally identify several environmental dimensions relevant for the assessment of a college library. This is the first step in what must become an ongoing research effort. Through further work on verification of the classification scheme herein suggested, further verification of the utility and accuracy of the Critical Incident Technique in environmental research, as a preliminary stage in that investigation may be otained.

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# Appendix A

Survey of Library Use, Distributed by the A. S. Cook Library, Spring, 1974.

# SURVEY OF LIBRARY USE

We need your cooperation and assistance in obtaining as complete an estimate as possible of the daily use made of the Cook Library. Please give thoughtful and careful attention to the questions listed below, and return the questionnaire to the Door Checker before leaving the Library. Your answers will help us to improve library service and to make the library more useful to you. Do not sign your name.

I. Reasons for coming to the library this trip: (Check only those applicable.)

_____ A. To borrow books
_____ B. To return books
_____ C. To read Reserve books in the Faculty Reserve Room
_____ D. To listen to tape, phonograph, or dial access assignments
_____ E. To do assigned readings in library materials other than Reserve books
_____ F. To look up material for a paper, report, thesis, etc.
_____ G. For general reading not assigned in class
_____ H. To study own books
_____ I. To borrow Audio Visual Materials (filmstrips, slides, etc.)
_____ J. To borrow Teaching Aids (pictures, kits, etc.)
_____ K. For personal information
_____ L. Other reasons (please specify)_____

_____

II. Materials used in the library this trip: (Not what you checked out.)

_____ A. Newspapers
_____ B. Current Periodicals
_____ C. Bound Periodicals
_____ D. Books from the general collection
_____ E. Periodical Indexes
_____ F. Reference Books
_____ G. Microfilm, Microfiche, or microcards
_____ H. Juvenile Books
_____ I. Courses of Study (Curriculum Guides)
_____ J. Textbooks from the Textbook Collection
_____ K. Phonograph records or tapes
_____ L. Dial Access Programs
_____ M. Government Documents
_____ N. Pamphlets from the Vertical Files

III. If you came to get materials or information were you:

_____ A. Able to find all the materials you needed
_____ B. Only partially satisfied
_____ C. Not able to find materials
_____ D. If you were not able to find what you needed, please specify what you wnated and why you were unable to locate it_____

_____

IV. If you had difficulty using the library was it because:

_____ A. The library staff was not helpful
_____ B. Book or material needed was not on the shelf
_____ C. You did not ask the library staff for help
_____ D. You did not know how to use the library very well

V. How long did you stay in the library this visit?

_____

VI. How often do you come to the Cook Library in a week?

___1 ___2 ___3 ___4 ___5 ___6 ___7 ___8 ___9 ___10 ___more than 10

VII. What other libraries do you use to get materials for college assignments?

_____ A. Enoch Pratt Free Library
_____ B. Baltimore County Public Library
_____ C. Goucher College Library
_____ D. Morgan College Library
_____ E. Coppin College Library
_____ F. Loyola College Library
_____ G. Johns Hopkins Eisenhower Library
_____ H. Johns Hopkins Welch Medical Library
_____ I. University of Maryland Health Sciences Library
_____ J. UMBC Library
_____ K. Other - please specify_____

IX. Have you used any of these other libraries for assignments in the last two weeks?

_____ Yes
_____ No

X. Do you usually look for books in the Cook Library card catalog:

_____ By author or title
_____ By subject

XI. Have you turned in another library use questionaire this week?

_____ Yes
_____ No

XII. Your status (Please check one)

_____ TSC freshman
_____ TSC sophomore
_____ TSC junior
_____ TSC senior
_____ TSC graduate student
_____ TSC faculty
_____ TSC staff
_____ Student at another college
_____ Adult
_____ High School student

## Appendix B

### Survey Instrument

1. Cover letter to subjects.
2. Positive Critical Incident Questionnaire (grey paper).
3. Negative Critical Incident Questionnaire (yellow paper).
4. Data Form (½ sheet of white paper).

May 2, 1975

Dear Fellow Student,

I am working on my master's thesis in psychology at T.S.C. I NEED YOUR HELP!

My research involves the identification of ALL FACTORS which contribute to the Albert S. Cook Library at Towson State College as a human environment--that is, ANY AND ALL ASPECTS OF THE LIBRARY which affect its use by students, including persons, places, things, situations, times, etc. ...

To get information, I am contacting library users--T.S.C. Students--and asking questions about their library experiences. YOU are one of a small, randomly selected group of students whom I am surveying. Therefore, your response is essential to this study, and to the completion of my degree.

Attached to this letter are two short questionnaires and a data form. You can help me by completing ALL OF THEM, to the best of your ability. It should take you only a few minutes, and you may wish to do it right now while you're thinking about it. When you have finished, return the questionnaires and data form in the self-addressed envelope which I have attached.

A copy of this study will be available in the Cook Library after it has been completed. And, to help in improving the T.S.C. Library, a special copy of this research will be given to the library staff, when completed. If you have any questions, contact me: (a) in the 3rd floor Psychology Lounge of Stephens Hall, Monday or Wednesday afternoon 2:30 to 4:30; (b) by leaving a message in my mail box, Room 209 Stephens Hall; or (c) by sending a message through the mail.

Your identity as a respondent to this survey will remain CONFIDENTIAL--that is, all information which might identify you will be coded.

I look forward to receiving your information in the very near future. Thank you in advance for your assistance.

Sincerely,

Jeffrey Reed

Jeffrey Reed
Graduate Student
Psychology Department
Towson State College
Baltimore, Maryland 21204

ENCLOSURES

This page is for your report of a POSITIVE critical incident.

Think of an experience you have had while using the T.S.C. Library during the past few months, representing an ASSET of the T.S.C. Library which benefited you in some way, and resulted in your being SATISFIED with the Library.

If you have had more than one helpful experience, think of the one SPECIFIC EVENT (SITUATION) which was most pleasant, interesting, or useful for you. This happening may have involved any aspect of the library environment which led you to be PLEASED with the T.S.C. library at the time--for example, people, places, things, spaces, times, etc....

Write down the exact circumstances of the situation. Please make your description as complete as possible, so that I can understand all of the facts involved in the experience. Remember, this is not a request for a general evaluation of the library or the library staff, but RATHER, for a concrete description of a PARTICULAR EVENT which involved your use of the T.S.C. Library.

1. What was the situation?

2. Specific Details (you need answer only the relevant sections):

   a. Persons involved (specific names are not essential)?

   b. Location of event?

   c. Things involved?

   d. When occurred?

   e. Other relevant details?

3. What did you do?

NOTE: If you need more space, or if there is a second POSITIVE experience which you feel is important, please use the back side of this questionnaire. Thank you for your help! Return the questionnaires to: Jeffrey Reed, Psychology Department, T.S.C..

This page is for your report of a NEGATIVE critical incident

Think of an experience you have had while using the T.S.C. Library during the past few months, representing a DEFICIENCY in the T.S.C. Library, which caused YOU a problem, and resulted in your being DISSATISFIED with the Library.

If you have had more than one problem experience, think of the one SPECIFIC EVENT (SITUATION) which most aggravated, hindered, or frustrated you. This happening may have involved any aspect of the library environment--for example: people, places, things, spaces, times, etc....--which led you to COMPLAIN about the T.S.C. Library at the time.

Write down the exact circumstances of the situation. Please make your description as complete as possible, so that I can understand all of the facts involved in the experience. Remember, this is not a request for a general evaluation of the library or the library staff, but RATHER, for a concrete description of a PARTICULAR EVENT which involved your use of the T.S.C. Library.

1. What was the situation?

2. Specific Details (you need answer only the relevant sections):

   a. Persons involved (specific names are not essential)?

   b. Location of event?

   c. Things involved?

   d. When occurred?

   e. Other relevant details?

3. What did you do?

NOTE: If you need more space, or if there is a second NEGATIVE experience which you feel is important, please use the back side of this questionnaire. Thank you for your help! Return the questionnaires to: Jeffrey Reed, Psychology Department, T.S.C..

DATA FORM for Library Survey

1. About how often (on the average) do you use the T.S.C. Library?
   ( ) once a month or less ( ) once a week
   ( ) two or three times a month ( ) several times a week

2. What is your classification in college?
   ( ) Freshman ( ) Sophomore ( ) Junior ( ) Senior

3. What is your residence status?
   ( ) Resident Student ( ) Commuter Student

4. Did you transfer to T.S.C. from another college? ( ) no ( ) yes
   If yes, for how many semesters have you been at T.S.C.? _____

5. What is your sex? ( ) Female ( ) Male

6. What is your age? _____

7. What is your major department at T.S.C.? _____

NOTE: Please return this data form and the questionnaires to:
Jeffrey Reed, Psychology Department, T.S.C., Baltimore, Md. 21204

# Appendix C

## Pilot Study Forms

1. Cover letter to subjects in the Pilot Study.
2. Preliminary forms of Survey Instruments:
   a. Cover letter to subjects.
   b. Positive Critical Incidents Questionnaire.
   c. Negative Critical Incidents Questionnaire.
3. Post-Questionnaire Inquiry Form.

TO: All students answering this questionnaire

FROM: Jeffrey Reed
Psychology Department

DATE: April 17, 1975

You are now participating in the Pilot Study of a Psychology Research Project, which means that this is the first time these questionnaires have been used. Attached you will find a letter which explains this survey, two very similar questionnaires, and a questionnaire about the questionnaires. Since this is a Pilot Study, your comments will have two uses:

a. They will provide information requested in the study itself;

b. (Most importantly) They will provide information about the questionnaires themselves: are the questions understandable, the directions clear, or do any changes need to be made.

Your detailed responses at this stage of the research are absolutely essential, and the more information that you provide me, the better the survey will be.

After you have completed the questionnaires and the inquiry, you may drop this information into the "Questionnaire Return Box" at the Main Entrance/Exit of the Cook Library. If you have not completed the questionnaire by the time you leave the library today, and are unable to return the questionnaires here; PLEASE return this information AS SOON AS POSSIBLE at the Psychology Department.

So that you do not receive another questionnaire, when the final version of the survey is mailed out, it would be helpful for me to have your name and/or social security number (both of which will remain confidential).

Name: _____

Social Security Number: _____

Thank you very much for your help!!! If I may be of any assistance to you, please let me know.

April 15, 1975

Dear Fellow Student,

I am working on my master's thesis in psychology at T.S.C. and I need your help!

The problem which I am studying concerns finding out all of the factors which contribute to the Albert S. Cook Library at T.S.C. as a human environment--that is, I am trying to identify ANY and ALL aspects of the T.S.C. Library which affect its use by students. In order for me to gather this information, I am contacting some of the people who use the library--Towson State College students--and asking questions about experiences in the Library. You are one of a randomly selected group of students to whom I am writing, and as such, your response is essential to this study and to the completion of my degree.

Attached to this letter are two short, similar questionnaires. Completing them should take you only a few minutes, and you may wish to do this right now while you are thinking about it. When you are finished, please return the questionnaires to me in the self addressed envelope which I have attached.

A copy of this study will be available in the Cook Library after it has been completed. And, to help in improving the library, a special copy of this thesis will be presented to the library staff.

If you have any questions, please feel free to contact me in one of the following ways: (a) in the 3rd floor Psychology Lounge, Stephens Hall, on Monday or Wednesday afternoons, from 2:30 to 4:30; (b) by leaving a message in my graduate student mail box, Room 209, Stephens Hall; (c) by sending a message through the mail.

I assure you that your identity as a respondent to this survey will remain strictly conficential--that is, all information which is specifically pertinent to you as an individual will be coded to preserve your anonymity.

I look forward to receiving your information in the very near future. Thank you in advance for your assistance.

Sincerely,

Jeffrey G. Reed

Jeffrey Reed
Graduate Student
Psychology Department
Towson State College
Baltimore, Maryland 21204

COLLEGE LIBRARY CRITICAL INCIDENT QUESTIONNAIRE - POSITIVE

1. During the past six months, in your use of Towson State College's Cook Library, have you had any beneficial or pleasant experiences in using the library?

_____yes _____no

2. If you have had more than one positive encounter with the library, please think of that situation which was most helpful, interesting, or useful to you, in doing what you needed to do in the library. Please describe briefly the exact circumstances of that situation, identifying what happened, where, about when, and/or anything else relevant for me to understand the nature of that happening.

3. With about what frequency (on the average) do you use the Cook Library?

_____once a month or less _____once a week
_____two or three times a month _____several times a week

4. Is your use of the library related to this incident? _____yes; _____no
If yes, please explain how:

5. What is your classification in college?

_____Freshman _____Sophomore _____Junior _____Senior

6. Did you transfer to T.S.C. from another school? _____yes; _____no
If yes, for how many semesters have you been at T.S.C.: _____

7. What is your sex? _____Female _____Male

8. What is your major department? _____

NOTE: If there is a second positive librarary experience which you feel is important, please report it on the reverse side of this questionnaire. Thank you for your help! Return questionnaire to: Jeffrey Reed, Psychology Department, T.S.C..

# COLLEGE LIBRARY CRITICAL INCIDENT QUESTIONNAIRE - NEGATIVE

1. During the past six months, in your use of Towson State College's Cook Library, have you had any serious problems in using the library?

_____yes _____no

2. If you have had more than one negative (problem) experience with the library, think of the situation which most aggravated, or hindered, or frustrated you, while using the library. Please describe briefly the exact circumstances of that situation, identifying what happened, where, about, when, and anything else relevant for me to understand the nature of that happening.

3. With about what frequency (on the average) do you use the Cook Library?

_____once a month or less _____once a week
_____two or three times a month _____several times a week

4. Is your use of the library related to this incident? _____yes; _____no
If yes, please explain how:

5. What is your classification in college?

_____Freshman _____Sophomore _____Junior _____Senior

6. Did you transfer to T.S.C. from another school? _____yes; _____no
If yes, for how many semesters have you been at T.S.C.: _____

7. What is your sex? _____Female _____Male

8. What is your major department? _____

NOTE: If there is a second negative library experience which you feel is important, please report it on the reverse side of this questionnaire. Thank you for your help! Return questionnaire to: Jeffrey Reed, Psychology Department, T.S.C..

POST-QUESTIONNAIRE INQUIRY

Thank you for completing the attached quextionnaires. The function of this form is to get your responses and reactions to those questionnaires themselves. Your assistance will help in evaluating the effectiveness (or lack of it) of the questionnaires, and in identifying areas where they need changes. Please feel free to make any comments which you feel are relevant or helpful. Thank you for your time.

1. About how long did it take you to complete the two questionnaires? _____
   Was the length of the questionnaire reasonable? _____yes _____no
   If no, was it: _____too long _____too short
   Comments, if any:

2. Was the nature and purpose of the survey clear? _____yes _____no
   If no, what was unclear?

3. Was the type of information requested clear? _____yes _____no
   If no, what was unclear?

4. Were the questions understandable? _____yes _____no
   If no, what was the problem?

5. In your opinion, did you have sufficient guidance? _____yes _____no
   If no, what else might be added?

6. Was sufficient information given in the cover letter? _____yes _____no
   Was it: _____too long _____too short
   Comments, if any:

7. Did the physical format of the questionnaire offer any problems?
   _____yes _____no Comments, if any:

8. What is your general reaction to the questionnaires?

# Appendix D

## Return Envelopes for Survey

REED,J.G. 110

First Class
Permit No. 9560
Baltimore, Md.

BUSINESS REPLY MAIL
No postage necessary if mailed in the United States

Postage will be paid by--

Jeffrey Reed
Psychology Department
Towson State College
Baltimore, Maryland 21204

118

J.G.Reed-Psychology
Towson St. Col.
Baltimore, Md. 21204

QUESTIONNAIRE
RETURN ENVELOPE

No postage necessary,
If returned through
TOWSON STATE COLLEGE
CAMPUS MAIL.

Return to--

Jeffrey Reed
Psychology Department
Towson State College
Baltimore, Md. 21204

# Appendix E

## Information for Raters

1. Instructions to Raters.
2. General Classification Scheme of Environmental Dimensions.
3. Random Sample of 63 Critical Factor Reports.

12 July 1975

Instructions to Raters:

Thank you for agreeing to help me with this project.
You should find attached to this page the following:

1. A sample Questionnaire packet such as that received by each subject, including a cover letter, a gray Positive incident questionnaire, a yellow Negative incident questionnaire, and a Data Form.
2. A General Classification Scheme of Environmental Dimensions for College Library Environmental Assessment. (This is based upon my manipulation of the data, and is essentially a forced inductive arrangement of critical incident and critical factor reports.)
3. A Random Sample of Critical Factor Reports. (This constitutes 15% of the total data reports.)

What I have in essence done is to attempt to create some order, through my Classification Scheme, out of the chaos of about 400 reports of particular aspects of the library which students either find bothersome or helpful. Your assistance will offer some validation (or lack thereof) for my organization scheme.

After you have had a chance to examine the materials, I would like you to classify each of the 63 Critical Factor Reports provided, based upon the General Classification Scheme. That is, to the best of your ability, I would like you to fit each particular report into one (1) of the dimensions and classes available. For example:

| Code | Description of Incident | Class Assigned |
|---|---|---|
| Ja- | I asked the librarian at the Information Desk for help in finding a book and she was very rude to me. | I. B. |

(Each incident should thus receive a two character code representing the position of that incident in the Classification Scheme.)

Please return the completed materials to me at your earliest convenience. If you have any questions, please contact me.

Jeffrey G. Reed
131 Stevenson Lane
Baltimore, Maryland 21212
telephone (evening) 296-9524 (area code 301)

GENERAL CLASSIFICATION SCHEME OF ENVIRONMENTAL DIMENSIONS
for College Library Environment Assessment

Jeffrey G. Reed

I. STAFF of the Library (This dimension includes all staff, both professional and non-professional.)

A. Actions taken by personnel (This class includes both positive, beneficial and negative, inhibitive, unhelpful acts, or a failure to act on the part of the staff.)

B. Attitudes exhibited by personnel interacting with users (This class includes both positive, helpful, pleasant attitudes, and negative, discourteous, and indifferent attitudes perceived by users.)

II. MATERIALS in the Library (This dimension includes all informational materials, both print and non-print, and the systems of access to those materials in the library.)

A. Availability of Library Materials (This class includes whether or not particular items were available and why.)

B. Location Systems used in Organizing Materials, and Information Sources used in Locating Information (This class includes such systems as the card catalog, periodical indexes, the classification system, etc.)

C. Quality of Materials in the Collection (This class includes such characteristics of materials as currency, variety, etc.)

III. SERVICES provided by the library (This dimension includes all information and related services, exclusive of those covered in I and II.)

A. Hours of Library Service

B. Borrowing of Materials (This class includes regulations, procedures, etc. concerning circulation of materials.)

C. Access to Information (This class includes information services accessing information not available in the library.)

IV. PHYSICAL ENVIRONMENT of the Library (This dimension includes facets of the library affecting its use, exclusive of I, II, III above.)

A. Equipment in the Library (This class includes its availability and condition.)

B. Physical Design of Facilities (This class includes such factors as lighting, comfort, temperature, etc.)

C. Interactions with other users

D. Location of the Library on Campus

RANDOM SAMPLE OF CRITICAL FACTOR (INCIDENT) REPORTS
From Library Environment Critical Incident Study
Jeffrey G. Reed

| I.D. Code | Description of Incident | Class Assigned by Rater |
|---|---|---|
| Ak- | Doing research for a paper, and none of the books I needed were on the shelves. | |
| An- | I made special arrangements and set aside time, then drove with my son ½ hour to the T.S.C. Library. I arrived to find that it is not open on Friday evenings. I was furious! | |
| An- | In doing research, I have found that there is a veritable dearth of psychology journals, books, etc. in clinical psychology. | |
| Ax+ | I needed information of form and style for a bibliography and the librarian at the Information Desk gave me what I needed. | |
| Bc+ | The 5th floor of the library was quiet, so I was able to study. | |
| Bd- | A library staff member in the Current Periodical Room who had been talking loudly, laughing, etc., was very rude and sarcastic when asked to be more quiet. | |
| Bf- | I was trying to find information in magazines, and the woman at the Information Desk was very unpleasant when I asked for help. | |
| Bh+ | The lady at the Faculty Reserve desk was very pleasant when I needed change for the copy machines. | |
| Bh+ | A female Information Librarian was very pleasant and helpful in directing me toward reference books and finding information for my research. | |
| Bm- | The Reserve Book Room was entirely too noisy to read. | |
| Bv- | The bound volumes of magazines I needed were missing from the library. | |

| Code | Description of Incident | Class Assigned |
|---|---|---|
| bE- | A staff member in the Educational Materials Area seemed lazy, and was completely unwilling to help me find what I needed. | |
| Cf+ | I found a book I needed for a philosophy paper. | |
| Cy- | The librarian in the Faculty Reserve Room was very rude, and yelled at me because I had entered the room to return some materials before she got there. | |
| Df- | Parking places are acres away from the library. | |
| Dp+ | I was using the Teaching Aids on the 4th floor, and the person working there was very helpful and friendly. | |
| Dv- | I returned a library book, and realized only a few minutes later that I had left a test paper inside the book. The female library staff member at the Circulation Desk was completely unwilling to help me to find the book or the paper. | |
| Dy- | It is frustrating to look up references in one place and then have to go to another floor of the library to get the magazines. | |
| Eb- | The assistant in the Audio/Visual Aids area was very rude and irritated when I asked to borrow the earphones for the Video Tape Recorder. | |
| Ed+ | I watched a film on closed circuit t.v.. | |
| Ef- | I was typing a paper, and the lights were turned off a long time before closing time. | |
| Ek- | A student assistant in the Faculty Reserve Room was very enthusiastic and helpful. | |
| Et+ | The library has a dollar change machine. | |
| Et- | The librarian at the Information Desk gave confusing and incorrect directions for finding a book. | |
| Ev+ | I took books home from the library without checking them out at the Circulation Desk. | |
| Ev- | The library was closed one evening when I needed to do research. | |
| Ew+ | I listened to some audio tapes to prepare for an exam. | |

| Code | Description of Incident | Class Assigned |
|---|---|---|
| Fk+ | A Periodical Department staff member was helpful in suggesting where to find information. | |
| Go- | The copying machines were out of order. | |
| Gp+ | A librarian at the Information Desk demonstrated how to use the periodical indexes. | |
| Gu- | A female Information Librarian was unhelpful. | |
| Gz+ | I was looking for some magazines, and a student who I'd never met before showed me how to use the Periodical Room. | |
| Gz- | The bound magazines I needed were not on the shelves. | |
| Hd+ | I found the books I needed for my health paper. | |
| Hd- | The library has a very poor and very small collection of books on Black Literature. | |
| Hj+ | I found the book review article I needed. | |
| Hs- | There is a very limited variety of magazines in the library on learning disabilities in children. | |
| Ia+ | A Periodical Librarian explained procedures for finding magazines in the library. | |
| Ia- | The female librarian in the Faculty Reserve Room insisted that a book placed on reserve by a faculty member was not on reserve--even though I know it was. | |
| Ib- | The books I needed were not on the shelves. | |
| If+ | One of the men at the Information Desk showed me the Dissertation Abstracts, and how to use it. | |
| Jd- | Two of the articles I needed were torn out of the bound Periodical volumes. | |
| Jk+ | An Information Librarian helped me to locate a specific magazine I needed. | |
| Jz- | A Periodical Department staff member gave me the wrong information for finding a magazine. | |
| Kb- | I was fined $1.00 for returning a book 10 minutes late to the Faculty Reserve Room. But it was a mistake, since the book had been loaned out for too short a period of time. | |
| Kd+ | The librarian at the Current Periodical Desk helped me to locate a magazine I needed. | |

| Code | Description of Incident | Class Assigned |
|---|---|---|
| Ke- | The copy machine was broken. | |
| Kh+ | I watched a movie on closed-circuit t.v. for a class. | |
| Kh- | Two students asked the Periodical Librarian for help in finding materials. She was very sarcastic and did nothing to help. They left without being helped after getting ripped. (I was not involved, just sitting there reading, watching what happened.) | |
| Kl+ | A staff member at the Periodical Desk helped me to find a magazine I needed. | |
| Kw+ | I was working on a theatre project and a man at the Information Desk helped me to find some reference materials I needed. | |
| Lb+ | I generally find the books I need in the library. | |
| Ma+ | The Periodical Room person helped me to find the magazines I needed for a paper on Aging. | |
| Ma- | I was trying to use the Audio Tape Recording Equipment, but I had never used it before and it was confusing. | |
| Mm+ | The library has some good quiet places to study. | |
| Ms+ | The student assistant in the Multi-media area was very helpful in locating some filmstrips I needed. | |
| Ms- | The Faculty Reserve Room was entirely too hot. | |
| Nb- | I was unable to find the magazines I needed because the bound Periodical Volumes were scattered all around the library. | |
| Nt- | I was trying to find a particular encyclopedia and the Information Desk Librarian just sort of pointed and said, "its over there" then turned around and walked away. I couldn't find what I needed, and couldn't find him again to ask for more help. | |
| Od- | I couldn't find a book I needed for a paper. | |
| Og+ | I got some very useful materials for a class presentation for student teaching from the vertical file in the curriculum materials area. | |
| Os+ | The librarian at the Circulation Desk was very helpful and placed a hold for an overdue book checked out of the library. | |
| Pm- | The library is hot. | |